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A standard reference book for accountants and business men, profusely illustrated with hundreds of special forms and plates. Ed. by W. W. Thorne ... Detroit, Mich., The Business man's publishing company, limited [c1908–c09]

6 v. illus., forms (part fold.) 27½cm.

3d ed. (1901) Comp. by E. H. Beach and W. W. Thorne.

1. Encyclopedias and dictionaries. 2. Business—Dictionaries. I. Thorne, William Winter, 1870– ed.

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# Volume 1

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# American Business and Accounting Encyclopedia

*REVISED EDITION*

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A Standard Reference Book for Accountants and Business Men,
profusely illustrated with hundreds of special
forms and plates

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VOL. I.

COMPLETE IN SIX VOLUMES

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The Business Man's Publishing Company, Limited
DETROIT, MICHIGAN

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# INTRODUCTION

IN presenting the American Business and Accounting Encyclopedia to the public, we beg to call attention to the meaning of the words we have adopted as the title of this undertaking. "Encyclopedia" is defined as a comprehensive summary of knowledge, or of a branch of knowledge. In this encyclopedia we propose to endeavor to furnish a comprehensive summary of information pertaining to the science of accounts and other matters connected with business management, and when considered desirable, to expand the summary into a description, or discussion, according to our judgment.

It will undoubtedly be found that this work will not cover nor refer to everything pertaining to the science of accounts, nor is such the aim of the editors; but it will include everything of any importance or value that comes within the scope of our own observation and knowledge, and that of the many experts who are associated with us in this enterprise.

Included under different headings will be found a number of special articles of considerable importance and value to the student of accounting, and we hope to give particular attention to subjects not to be found in any detail in the text books on accounting hitherto to be obtained, and neither time nor expense will be spared to make this work as complete as possible, with a due regard to conciseness and clearness of expression.

In this revised edition we have the advantage of the assistance of the most celebrated Certified Public Accountant authorities in the United States who, by contributing to the general information contained in this Encyclopedia, have conferred their approval on the work we are endeavoring to accomplish.

An encyclopedia covering the business field, in order to be entirely practical and of value to the reader, must necessarily be in harmony with commercial advancement and progression, but it is well understood that there are many rules and methods in connection with special business which cannot be improved upon, but which are as practical today as when originated. The general scheme of this Encyclopedia is, therefore, to combine everything old that is good with everything new which is desirable, and we hope that those who study this work will find that it is of assistance in broadening the mind and assisting in perfecting their technical knowledge.

After completing the arduous labors connected with the publication of the

REVISED AMERICAN BUSINESS AND ACCOUNTING ENCYCLOPEDIA

we submit the result with confidence that it will be found helpful in the office to the business man, credit man, general office man, accountant and book-keeper.

We desire to express our obligation to those up-to-date accountants to whom we are indebted for a number of special articles used in this encyclopedia whose names are hereunder published.

The commercial law section has been contributed by the Hon. Chas. C. Simons, late Senator of the Michigan State Legislature, who is an acknowledged authority on the subject.

The authors of many of the principal articles contained in the revised American Business and Accounting Encyclopedia are as follows:

Dr. Joseph French Johnson, Dean of New York University School of Commerce, Accounts and Finance, New York City.

Geo. Wilkinson, of Wilkinson, Reckitt, Williams & Co., Certified Public Accountants, New York City.

Robt. H. Montgomery, Lybrand, Ross Bros. & Montgomery, Certified Public Accountants, New York City.

W. H. Prendergast, Ex-Sec'y. National Assn't of Credit Men, New York City.

C. N. Smith, Business Systems Manager, Burroughs Adding Machine Co., Detroit, Mich.

J. F. Ruark, Certified Public Accountant, New York City.

Thos. Conyngton, Manager and Treasurer, The Ronald Press, New York City.

Robert J. Bennett, C. P. A., Detroit, Mich.

N. T. Ficker, Civil Engineer, New York City.

L. U. Crawford, Building Society Expert, Kansas City, Missouri.

Charles B. Cook, Chief Accountant, Royal Typewriter Co., Hartford, Conn.

A. J. Conen, Accountant, Louisville Soap Co., Louisville, Kentucky.

J. H. K. Shannahan, Accountant, Maryland Steel Co., Sparrow's Point, Maryland.

D. C. Eggleston, Cost Accountant, Winthrop, Massachusetts.

G. E. Hutchison, Auditor, Pittsburg, Belmont Coal Co., Cleveland, Ohio.

M. V. White, Trust and Deposit Company of Onondaga, Syracuse, New York.

J. A. Finnegan, Systematizer, Philadelphia, Pennsylvania.

H. L. Leister, Principal, Zanesville Business College, Zanesville, Ohio.

G. Brownlee, Cost Accountant, Woodside Cotton Mills, Greenville, South Carolina.

R. G. Alcorn, Cashier, First Nat'l Bank of Hopedale, Ohio.

G. Jacobsson, B. A., Public Accountant, Chicago, Illinois.

C. B. Smeeton, Public Accountant, Chicago, Illinois.

L. Joseph, Accountant, Wilmerding, Loewe Co., San Francisco, California.



# THE AMERICAN BUSINESS AND ACCOUNTING ENCYCLOPEDIA

(REVISED EDITION)

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### (1) ABATEMENT.

(See Rebate.)—A discount allowed for prompt payment; the deduction from fixed debts at the custom house on account of damage or loss to goods while detained in warehouse. A term used to signify a deduction or allowance from the value of goods as invoiced on account of damage, loss, or some kindred cause.

### (2) ABSTRACT.

To abridge, to summarize, to epitomize.

A term used by accountants to describe their analysis of account books made in connection with an audit. It generally consists of independent postings from original books of entry. Such abstracts are usually confined to nominal or impersonal accounts and summary accounts representing customers' and creditors' accounts.

A term used by credit men to describe the report required by them from customers in order to determine the advisability and limit of credit.

A term used to describe the report on transfer of real estate, showing in whose name title or ownership is vested. (See Real Estate.)

### (3) ACCEPTOR.

The person upon whom a bill of exchange is drawn (the drawee) by signifying his assent to the document by writing his name upon it, becomes the acceptor.

### (4) ACCOMMODATION.

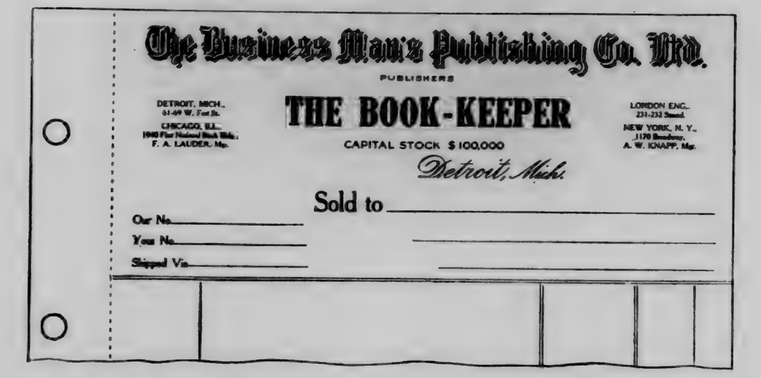
Temporary pecuniary aid given by one trader to another or by a banker to his customers. The loan of money or value without consideration.

### (5) ACCOUNT.

An epitome of transactions for reference.

A group of entries in a ledger relating to one particular person or to one particular class of transaction.

A record of transactions for reference.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The copy of the charge entered up in the books of account of the seller against the purchaser.

"A particular group or class of entries in a ledger relating to a person, or kind of property, or a branch of the profit and loss account."

A monthly statement furnished by the creditor to the debtor frequently itemizing the month's transactions and exhibiting the balance due.

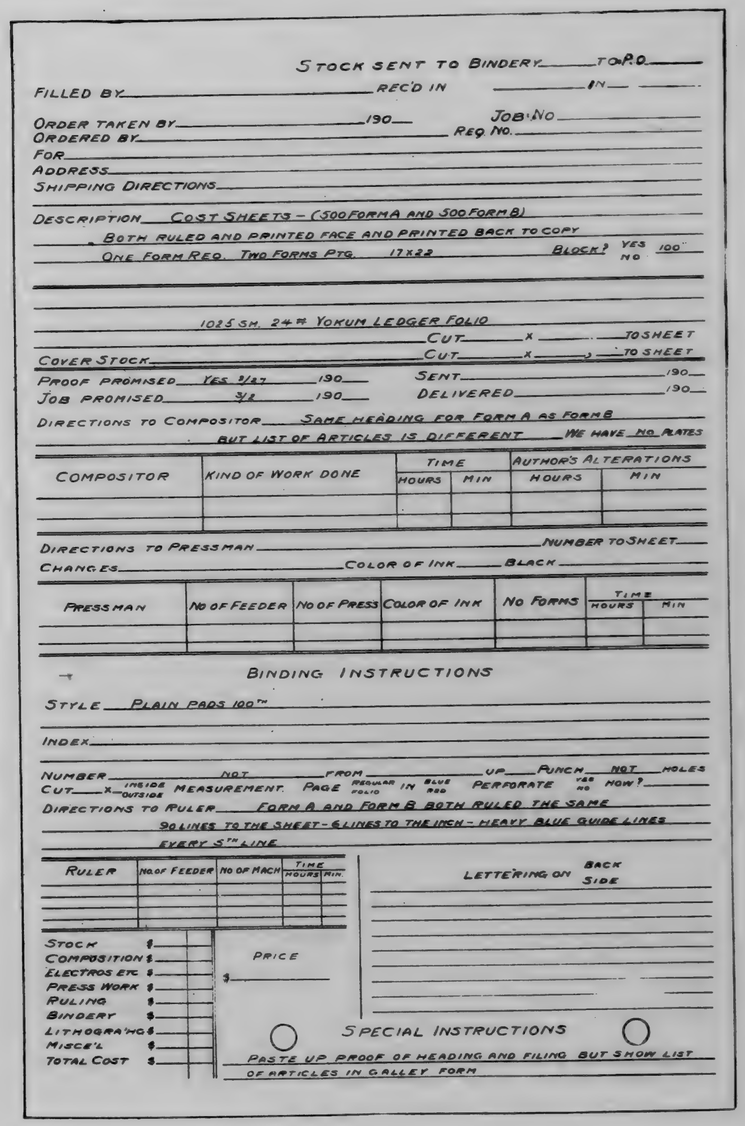
### (6) ACCOUNT BOOKS, MANUFACTURE OF.

The story of the manufacture of a blank book properly begins with a description of the paper which makes up its pages. Blank books require a special kind of paper—a paper having a smooth writing surface, proper sizing to permit erasures, a permanent white color, great strength to prevent tearing, and sufficient body to make it lie flat. The kind of paper which has all these qualities, and which is used on all the better grade of blank books, is called ledger paper. There are various grades of ledger paper, the grade being determined by the degree in which they possess the qualities mentioned above. Ledger paper is carried in many sizes, the most used being Cap 14x17, Demy 16x21, Medium 18x23, Double Cap 17x28. These same names which designate the size of the sheet of ledger paper, also designate the size of the blank book which is made from that sheet. For example, we speak of a demy ledger, a medium cash book, or a double cap journal. The demy ledger has a page about 10¼x15½, the size of a folded sheet of demy trimmed down slightly. In the same way, a medium cash book would have a page about 11¼x17½ and the double cap journal, 13½x16½.

After the ledger paper of proper grade and size has been selected, a quantity of sheets, dependent on the number of pages wished in the book, is counted out and sent to the ruling room. Here the flat sheets are fed into the ruling machines and ruled up either in the customary form of ledger, cash, journal, day book, voucher register, etc., or to special copy which may be furnished. The pens in the bar of the ruling machine can






STOCK SENT TO BINDERY ____ TO P.O. ____
FILLED BY ____ REC'D IN ____ IN ____
ORDER TAKEN BY ____ 190__ JOB'S NO ____
ORDERED BY ____ REQ. NO. ____
FOR ____
ADDRESS ____
SHIPPING DIRECTIONS ____
DESCRIPTION COST SHEETS – (500 FORM A AND 500 FORM B)
BOTH RULED AND PRINTED FACE AND PRINTED BACK TO COPY
ONE FORM REQ. TWO FORMS PTG. 17x22 BLOCK? YES NO 100
1025 SM. 24# YOKUM LEDGER FOLIO
CUT ____ x ____ TO SHEET
COVER STOCK ____ CUT ____ x ____ TO SHEET
PROOF PROMISED Yes 3/27 190__ SENT ____ 190__
JOB PROMISED 3/2 190__ DELIVERED ____ 190__
DIRECTIONS TO COMPOSITOR SAME HEADING FOR FORM A AS FORM B BUT LIST OF ARTICLES IS DIFFERENT WE HAVE NO RATES

| COMPOSITOR | KIND OF WORK DONE | TIME HOURS | TIME MIN | AUTHOR'S ALTERATIONS HOURS | AUTHOR'S ALTERATIONS MIN |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

DIRECTIONS TO PRESSMAN ____ NUMBER TO SHEET ____
CHANGES ____ COLOR OF INK ____ BLACK ____

| PRESSMAN | NO OF FEEDER | NO OF PRESS | COLOR OF INK | NO FORMS | TIME HOURS | TIME MIN |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

BINDING INSTRUCTIONS
STYLE PLAIN PADS 100TH
INDEX ____
NUMBER ____ NOT ____ FROM ____ UP ____ PUNCH ____ NOT ____ HOLES
CUT ____ X ____ INSIDE OUTSIDE MEASUREMENT. PAGE REGULAR FOLIO IN BLUE RED PERFORATE YES NO HOW? ____
DIRECTIONS TO RULER FORM A AND FORM B BOTH RULED THE SAME
90 LINES TO THE SHEET – 6 LINES TO THE INCH – HEAVY BLUE GUIDE LINES EVERY 5TH LINE

| RULER | NO OF FEEDER | NO OF MACH | TIME HOURS | TIME MIN. |
|---|---|---|---|---|
| | | | | |
| | | | | |

LETTERING ON BACK SIDE

STOCK $ ____
COMPOSITION $ ____
ELECTROS ETC $ ____
PRESS WORK $ ____
RULING $ ____
BINDERY $ ____
LITHOGRA'HG $ ____
MISC'L $ ____
TOTAL COST $ ____

PRICE
$ ____

SPECIAL INSTRUCTIONS
PASTE UP PROOF OF HEADING AND FILING BUT SHOW LIST OF ARTICLES IN GALLEY FORM

be placed so as to make columns of any width, and as every pen is fed with ink by a saturated worsted cord, any number of colored lines may be obtained,—a double red line, a triple green, or a single purple—all are made at the same time. Although several colors can be run simultaneously, the sheet cannot, however, be ruled in more than one direction at a time, or on more than one side at a time. It must run through the machine once for the horizontal lines, and again for the perpendicular lines, and twice more for the same result on the other side of the sheet. Oftentimes where the form to be ruled is complicated with interlining or special lines, the sheet must go through the machine half a dozen times to accomplish the result. The horizontal lines—the lines which are used to write on, are called "feint" lines, while the perpendicular lines which make the columns, are called "down" lines.

When the sheets have been ruled to the desired form, they are sent either to the bindery or to the press room, depending on whether or not a printed heading is desired. The printed head book requires two operations more than the blank head book, and so is more expensive. The first of these operations is the setting of the type. The type has to be spaced out and built into a form which will fit the ruling, so that the word "date," for instance, will be at the top of the date column and the word "amount" at the top of the amount column, etc. When such a type form has been set up, it is put on a printing press and the ruled sheets are run through first on one side and then on the other. A very accurate press register is required.

They then go to the bindery. The term binding is very inclusive. It covers folding, sewing, trimming, forwarding, finishing, tooling, indexing, paging, numbering, lettering, etc., and so, although generally speaking the making of a blank book may be said to consist merely of ruling, printing and binding, these three terms in reality cover ten or a dozen distinct operations. We have seen that so far the sheets have been handled flat. When they reach the bindery, they are folded once through the center in sections of five or six sheets each. The flat piece of paper we have called the "sheet," but the folded sheet we must now refer to as "leaves" or "pages." A "leaf" is half a sheet, measured from the fold to the edge. A "page" is half a leaf, or, rather, one side of a leaf. Therefore, a book with 200 leaves will contain 400 pages. A book with 500 pages will contain 250 leaves, etc. A leaf is sometimes spoken of as a "folio" or a "folio page." Especially is this true when the ruled form continues across two pages, the right and the left, instead of being complete on each page.

But to go back to our story. We left the sheets folded into sections. These sections are now sewn through the center of their fold to three or four strong canvas or parchment tapes,—one section being laid on top of another until the book is built up. The tapes are cut so as to leave a short projection on each side, which is afterwards glued onto the covers of the book. No matter how careful the folding and sewing may have been





done, the edges of the book at this stage are rough and unsightly. For this reason a trim is taken from all three sides to smooth them off, and in the majority of cases, they are stained to improve their appearance. Although a plain green stain is often used for the edges, the distinctive blank book edge is the marble comb edge. This is obtained in the following manner: Liquids of several colors are sprinkled on the surface of a thick solution of gum. The colors remain on the surface of this solution, and can easily be combed out into a pattern. The edges of the blank book are then dipped quickly on to this pattern in the solution and the colors adhere to the edge of the book.

We mentioned above the term "forwarding," and this is the next operation which the book goes through. It includes the casing in of the book, and the putting of it into the leather. The case into which the book is fitted and glued consists of strong binder's board covers, with rounded backs. This binder's board is a tough substance possessing the outward appearance of a rough, thick card board, and made essentially of the same materials, but having the strength and rigidity of a wooden board. The thickness of the binder's board used is determined by the size and weight of the book, and upon the wear and tear to which it is to be put, as well as upon the style of binding which is desired. After the case has been firmly glued to the book and fastened to the projecting tapes, it is ready to be covered with cloth, canvas or leather, or any combination of same which may be desired. The smaller and lighter weight books are usually made with leather back and corners, with black cloth or drab canvas sides, but an entire canvas covering is often used. This is called "full canvas" binding. The large, heavy books are usually covered entirely with leather, and this is called "full leather" binding, or the book is spoken of as a "full bound book," a "full Morocco book," or a "full Russia book." Usually a combination of two kinds of leather is used, most commonly red Russia back and ends, with white leather flesher sides. This is called "Russia Ends and Bands." The leather is moistened before being pasted to the book so as to be easily shaped with rounded corners. The reader has probably heard of "half" bound, "three-quarter" bound, and "ends and bands" books, and wondered what was meant. The half bound books have light weight boards with smooth rounded backs. The three-quarter books have medium weight boards with back reinforced by bands which may be seen to project. The ends and bands books have thick, heavy boards with double band reinforcements on the back.

We now have our book cased in and covered over, but it is in a wet, gluey condition, and must have a chance to dry out and season. To prevent warping in this drying process and to allow the glue or paste to set firmly, the book is put under heavy pressure and allowed to stand for two or three days, or if a heavy book, better for two or three weeks. After this time has elapsed, it is ready for finishing. The finishing consists in pasting in the fly leaves, scraping, varnishing and ornamenting the cover.

The ornamentation is either burnt into the leather or put on with gold leaf. The gold leaf is applied with hot iron rollers whose heat causes the gold to cling to the leather. The gold lettering is applied in much the same way. The lettering is set in type, the type is then heated to a high temperature, covered with a sheet of gold and applied with pressure to the leather. With the exception of indexing, paging, and other minor operations, the blank book is now complete.

The time consumed in making a blank book by the process described above, is from one week to ten days for a small unprinted book, and from two to three weeks for the large printed head book, but the longer a book is allowed to season the stronger it will be, and the longer it will last. The life of a blank book may often be prolonged by the addition of a canvas cover over the binding. This cover can suitably be retained while the book is in current use and taken off when the book is closed, revealing the fresh binding which looks well when the book takes its place on the shelf among other books which have seen active service and have been retired. It may be of interest to know that bindings can often be repaired when worn or damaged, and strengthened when beginning to give way. The books can often be resewed and put back into the old or new covers, renewing their usefulness for many years. Although the life of a blank book depends to a large extent on the care it receives at the hands of the book-keeper, it depends far more on the care of the maker in selection of materials and the kind of labor which goes into it. There is no commodity which is sold at a wider range of price than the blank book, and no commodity in which the difference in value is less apparent to the average man. We trust that the above explanation of the process of manufacturing will aid the reader in detecting this difference in value, and will teach him to look first at the quality of paper, the form of ruling and the kind of binding before attempting to make any comparison in price. Time tells the story, and after the blank book has been put into use, the discovery of inferior quality comes too late.

The loose leaf book has become of late years a new feature in the commercial stationer's stock. Some of the best loose leaf methods of binding are only to be found now in the stationery establishments. The original period of introduction has passed, and the loose leaf ledger is now a staple article of stock in both large or small stationery houses.

It is made on a simple, everyday mechanical principle, and the very best materials the market affords are used in its construction. The salient features are simplicity, durability and strength.

The vice-like grip so easily effected with the powerful jaws insures a perfect alignment of the sheets, the great essential feature of a successful loose leaf ledger.

Three points of excellence in the ledger are the rounded back which will open flat, the leather covered back which allows for lettering of title, and the absence of exposed metal parts to scratch the office desk.





## Suggestions and Instructions

### ON PREPARING COPY FOR BLANK BOOKS TO BE MADE TO ORDER.

When getting up a sample of a new form it is desirable to make it of a regular size, so there may be no waste of material; therefore it is best to know the usual

### SIZES OF PAPERS USED IN BLANK BOOKS

| NAME OF SIZE | STANDARD WEIGHTS PER REAM | SIZE OF SHEET | SIZE OF FOLDED SHEET | SIZE OF PAGE IN BOOK WHEN MADE UP |
|---|---|---|---|---|
| Cap - - - | 18 | 14 x 17 | 8½ x 14 | 8¾ x 13⅝ |
| Demy - - | 28 and 30 | 16 x 21 | 10½ x 16 | 10¾ x 15⅝ |
| Medium - - | 36 and 40 | 18 x 23 | 11½ x 18 | 11¾ x 17⅝ |
| Double Cap. - | 36 and 40 | 17 x 28 | 14 x 17 | 13½ x 16⅝ |
| Royal - - - | 44 | 19 x 24 | 12 x 19 | 11½ x 18½ |
| Super Royal - | 54 | 20 x 28 | 14 x 20 | 13⅝ x 19½ |
| Imperial - - | 72 | 23 x 31 | 15½ x 23 | 15 x 22½ |
| Dbl. Demy - | 56 and 60 | 21 x 32 | 16 x 21 | 15½ x 20½ |
| Dbl. Medium | 72 and 80 | 23 x 36 | 18 x 23 | 17½ x 22½ |

### FOR RULING SAMPLE FOR COPY

Trim a sheet of Manila or other plain paper to the size of a folio or page of book wanted. Rule off the head lines at the usual distance from the top, then space off your down columns exactly where you want them, allowing ¾ inch extra space for the binding in center, or ⅜ at side, as your copy may be drawn.

If the ruling of each page is the same, use only a half sheet (or one leaf); if the form of ruling extends across the two pages or the two pages are different, you had better use the full width of two pages, showing sufficient space in center (three-quarter inch) for binding.

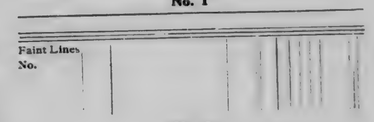
It is not necessary to send the whole sheet showing length, unless there is different matter or a change below the heading. The width of page determines the usual length; if it is to be shorter state length desired.

Mark on copy the number or width of faint ruling (horizontal lines).

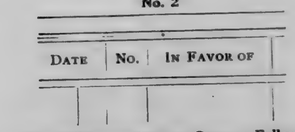
If a "box" heading is wanted, rule double head line, as illustrated below (No. 2). Note the width of faint lines on margin.

Write very plainly all copy for printing.

**No. 1**




**No. 2**




**Give Full Instructions on Copy as Follows:**

1. NUMBER OF PAGES OR LEAVES.
2. SIZE OF PAPER OR PAGE IN INCHES.
3. WIDTH OF FAINT RULING.
4. PAGING. Whether consecutive or in folios.
5. STYLE OF BINDING.
6. LETTERING ON TITLES, at

| | Top: | Cash. |
|---|---|---|
| | Center | H. |
| | Bottom: | Box & Cox. |

7. NUMBER OF ACCOUNTS TO A PAGE, as in Ledgers; 400 pages, 1 account; 200 pages, 2 accounts; 200 pages, 3 accounts.
8. INDEX. If bound in or separate, and what form?
9. CANVAS COVER. If wanted.

If the book is to be a duplicate of one we have made, it is unnecessary to send copy; see our label inside front cover and advise us of the job number on same; we save duplicate sheet with instructions thereon of all job-work done in our establishment.

If the book is to be a duplicate of one made by other parties, cut out the last leaf one-fourth inch from binding, if it can be spared; this will show both pages if they vary. Write particulars on copy, as per items 1 to 9 herewith.

Many forms of ruling and sizes of ledger sheets are carried in stock ready for immediate delivery.

Besides the ledger and ledger transfers, there may be found loose leaf price books, order, receipt and inventory systems, and holders and binders of all kinds.

To a person desiring an account book, we offer the following:

Everything that a man needs at his desk, in the counting-room, in his library, in his advertising department, or in his correspondence, can be furnished promptly by the manufacturing stationer so equipped. There is no order too small to receive their prompt and careful attention, and there is no order too large for them to execute satisfactorily.

(7) ACCOUNTS PAYABLE ACCOUNT.

The ledger account with the creditors. A purchase account. A representative account to which are posted the totals of accounts payable columns from cash book and journal.

(7a) ACCOUNTS PAYABLE BOOK.

ACCOUNTS PAYABLE RECORD.

ACCOUNTS PAYABLE REGISTER.

The record of accounts payable is sometimes called a purchase record,

or voucher record. The distinguishing features of these records will be considered under their appropriate headings. In some businesses the record of purchases is called an accounts payable record. All invoices are entered in this book as received and columns are provided for rebates, allowances, cash discounts, transportation, deductions, etc. Distribution columns are also provided for the different accounts to which the goods purchased are to be charged. In most cases the gross amount of the invoices (less legitimate trade discounts) is credited to the accounts payable account in the general ledger, the posting being the total of the amount column in the accounts payable record. The totals of the columns provided for cash discounts, rebates, allowances, etc., will be posted to the debit of accounts payable account or charged to accounts which are negative to accounts payable account.

Where the accounts payable record is kept as above indicated, the total of the invoices entered therein is at the close of each month credited to an accounts payable account kept in the general ledger. A special column is provided in the cash book headed "accounts payable" and the total of this column is at the close of each month posted to the credit of the accounts payable account in the general ledger. Allowances, discounts, etc., are credited to interest and discount, or similar accounts, and debited to accounts payable account, so that the balance of this account will always reveal the amount of outstanding indebtedness on accounts payable.

This method is particularly convenient where it is customary to discount all bills, or for taking care of small accounts payable where they are very numerous. The balance of the account can always be verified by inventory of unpaid bills on file.

### (8) Accounts payable ledger.

A purchase or creditors' ledger in which are carried the individual accounts with creditors.

### (9) Accounts receivable account.

(a) The ledger account with a customer, or debtor. A sales account.

(b) A sundry account receivable is one in which a number of small accounts are bunched, the balance being drawn at the close of the month by subtracting the total of the credits to all the accounts as if it were an account with one individual.

The credits to sundry accounts receivable account should be posted consecutively, and checked alphabetically, or numerically, with the debits to which they relate. When the system is adopted of placing each credit opposite to its corresponding debit, the entire account to be footed anew every time a balance is taken, the account is always in great confusion and a prolific source of error.

There are many ways of treating accounts receivable from the time the letter is received which contains the remittance in payment of the account to the posting of same to the ledger. As a rule the letter and





check are handed to the cashier (or book-keeper when he combines the duties of cashier and book-keeper), and he makes a notation on the letter of the page of the cash book on which the remittance is entered, and at the same time examines the correctness of all deductions for discount, freight, allowances, claims, etc. After the entry has been made on the cash book, it is desirable to file the letters in a special accounts receivable file, where they may be traced as vouchers, which will show the net amount of check received in case any question should hereafter arise in regard to the amount of deductions as shown on the cash book. Where deductions have to be referred to a traveling salesman or other party for O. K., the amount of remittance will be entered on the cash book and posted to the ledger, leaving a balance outstanding until the claim can be O. K.'d or refused.

### (10) Accounts receivable book.

A sales book or record.

A book designed to keep track of credits for the use of the credit man. It is usually ruled for months, the customer's name and amount of bills being entered under the due date.

Each month, therefore, this book furnishes a list of collections to be made during that month, and space is provided in which to record the steps taken for collection and their result, together with other memoranda.

### (11) Accounts receivable as capital.

Problem: It sometimes happens that in the organization of a corporation the original proprietor turns over certain accounts receivable as part payment for stock in the new corporation. As some of this may turn out to be uncollectible, what is the correct way of dealing with such a transaction?

Solution: If the bills and accounts receivable were taken at their face value, open an account with B and as the bills and accounts mature credit B with the interest on the same, if there be any. If any of the bills or accounts prove worthless charge the same to B. By doing this the value of B's capital account will not be affected, and the firm will not be obliged to stand any loss (which does not belong to it) through the inability to collect some of the accounts receivable or bills receivable taken from B.—(*G. E. Mark.*)

### (12) Accounts receivable discounted.
### Assigned accounts.

Accounts assigned to a bank or other party for the purpose of realizing on same before they become due.

As this method of discounting accounts receivable is not very common, we will illustrate it as follows:

We will assume that W. H. Hunt & Co. have $12,000 out in accounts receivable, distributed as follows: Smith & Co., $2,000; Jones & Co., $4,000; Brown & Co., $6,000. Wishing to raise immediately, say $8,000,

they communicate with their bankers, and having obtained their consent to teh loan, copies of each bill (represenitng the $12,00) are made in duplicate, and on the back of each is endorsed the usual "for value received we do hereby transfer, set over, etc." A statement is attached to each firm's bills, making each account complete. All the firms whose accounts are being assigned are then notified by Hunt & Co. of the fact, and the bills assigned are specifically mentioned. The bills are then sent to the bank accompanied by addressed and stamped envelopes, in order that they may have as little trouble as possible in the matter. This completes the preliminaries.

The bank then makes a demand note for the amount of the loan ($8,000), which embodies the collateral on which the loan is made, i. e., Smith, Jones and Brown's accounts, it being understood that the bank does not loan on the accounts but on the note, which is signed by Hunt & Co., and their account is then credited by the bank and loan account charged.

Hunt & Co., first make a journal entry crediting Smith, Jones and Brown and charging assigned accounts, which is really an account against the bank. The reason for this entry is very plain. The moment the assignment is made to the bank, that moment the accounts of the three customers are settled as fully as though they had mailed checks for the proper amounts, so far as they are concerned; but as a matter of fact the amounts are still "accounts receivable," the only change being the source from which the payment is to be received.

Cash is then charged with $8,000 and the item is credited to loan account. Some might prefer calling this account bills payable, which is perfectly proper; but it has been found more desirable to separate it from the trade notes. The accounts affected by the above entries then stand as follows:

SMITH & CO.

| | | | | | |
|---|---|---|---|---|---|
| Nov. 20. | Mdse | $2,000 | Nov. 26. | Asgmt | $2,000 |

JONES & CO.

| | | | | | |
|---|---|---|---|---|---|
| Nov. 15. | Mdse | $4,000 | Nov. 26. | Asgmt | $4,000 |

BROWN & CO.

| | | | | | |
|---|---|---|---|---|---|
| Nov. 15. | Mdse | $6,000 | Nov. 26. | Asgmt | $6,000 |

ASSIGNED ACCOUNTS.

| | | |
|---|---|---|
| Nov. 26. | Smith & Co | $2,000 |
| Nov. 26. | Jones & Co | 4,000 |
| Nov. 26. | Brown & Co | 6,000 |

LOAN ACCOUNT (FIRST NAT'L BANK.)

| | | |
|---|---|---|
| | Nov. 26 | $8,000 |

CASH.

| | | |
|---|---|---|
| Nov. 26. | Loan | $8,000 |

The bank receives Smitn & Co.'s check for $2,000. They pass it to the credit of Hunt & Co. exactly the same as a deposit made in the regular way. Then a subsequent entry is made,charging H. & Co., and crediting loan.

Hunt & Co. do exactly the same thing, i. e., charge cash and credit





the bank (assigned accounts) and then credit cash and charge loan account.

These are the methods applied by the borrower and lender. When the $8,000 has been received by the bank, it closes out the loan and makes up interest charge; which is deducted from the regular deposit account of Hunt & Co., the papers relating to the assignment and the note are all returned, and subsequent payments from Smith, etc., are received by the bank and credited up as straight deposits, while Hunt & Co., credit such payments to assigned accounts until it is closed.

### (13) Accounts receivable ledger.

A sales or customers' ledger in which are carried the individual accounts with debtors.

### (14) Adjustment or controlling account.

A term used to describe an account to which adjusting entries are debited and credited for the purpose of adjusting or correcting books of account. In auditing, it is a common practice to open such an account, charging and crediting to same all differences or errors which may be discovered in the course of the audit. Where such an account is carried it will be found of great assistance to the accountant, as this account not only contains the details of every difference, but at the same time keeps the books in balance.

A title used by accountants to describe balance accounts with ledgers, which are used to assist in locating errors which may have occurred. The original idea was that each departmental ledger (wholesale, retail, city, country, state, etc.) should contain a general ledger adjustment account, while the general ledger should contain an adjustment account with each departmental ledger. In practice, however, it has been found unnecessary to carry the adjustment accounts with the general ledger in the departmental ledgers, as this merely involves a duplication of work. The adjustment account in the departmental ledger has been discontinued also with the object of preventing the book-keeper keeping the departmental ledger from knowing whether his work is correct or not until it has been incorporated in the general ledger and compared with the postings to the adjustment account from the total columns of the books of original entry. So far as this is concerned, however, the desired object cannot be obtained, as any book-keeper can prove his own work if he has any wish to do so. If he cannot obtain the actual balance of his ledger as a basis for proving his postings, he can establish an imaginary basis which will answer the purpose just as well. The assertions, therefore, of some accountants that they can introduce systems of accounting by which the various book-keepers will be dependent upon the head accountant for the knowledge of the accuracy or inaccuracy of their work are entirely specious and unjustifiable.

To the adjustment account in the general ledger will be debited and credited the totals of columns provided in the books of original entry for

the purpose of keeping departmental sales; purchase, receipts and payments separate, the balance of the adjustment account thus representing the total of the balances in the departmental ledger with which the account is kept.

Such accounts may be kept with great advantage where a number of traveling salesmen are employed, each having a certain territory. In this case the sales ledgers should be subdivided, so many pages being allotted to the customers of each salesman. Separate columns should be provided in sales books, cash book and cross-entry journal for each section, and a representative, or adjustment account opened with each section in the general ledger to which the totals of columns in sales book, cross-entry journal, and cash book are posted at the close of each month. If practicable, it will be found more convenient to provide a separate ledger for the section covered by each traveler, and the loose leaf system is admirably adapted for this purpose, as it can be made just the size to suit the number of accounts to be carried, and enlarged and diminished at will.

The form of ledger we recommend (where exceptional circumstances do not alter cases) would contain the following columns:

Date, items, folio, debits, monthly debits, debit balance.

Date, items, folio, credits, monthly credits, credit balance.

J. F. Robins LEDGER

| DATE | | FOLIO | DEBITS | | MO. DEBITS | | DR. BALANCE | | DATE | | FOLIO | CREDITS | | MO CREDITS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/31 | Balances | | | | | | 7845 | 19 | | | | | | | |
| 4/30 | Journal | 28 | 6751 | 20 | | | | | 4/30 | Cash | 160 | 5967 | 80 | | |
| | Cash | 160 | 129 | 60 | 6880 | 80 | | | | Journal | 28 | 1127 | 95 | 7095 | 75 |
| | | | | | | | 7630 | 24 | | | | | | | |

The purpose of the "monthly debits" and "debit balance" columns will be explained a little later on.

The representative, or adjustment, accounts in the general ledger will at the close of each month show as follows:

This account, you will note, displays the total business of J. F. Robins, salesman, and its results, and it can be made still more useful by a little more itemizing. Sales can be kept separate from cross entries on the debit side, and on the credit side returns and allowances may be particularized. The increase of "monthly debits" shows an increase of business, and the increasing or decreasing "debit balance" shows how the customers are paying their accounts. So that this account becomes a valuable comparative statement of J. F. Robins' business.

In taking the trial balance of the J. F. Robins ledger, draw off monthly debits, monthly credits and the balances, and foot all three columns. Then,





if the total of the individual balances does not amount to $7,631.24, you can see at a glance whether your total debits posted are $6,880.20, and your total credits $7,095.75. That means that ninety-nine times out of a hundred when there is an error it can be located to the side on which it occurred, which is a tremendous advantage.

The principle above outlined can be successfully carried out in any business with manifest benefit. In enterprises of considerable magnitude it will frequently be found convenient to have separate cash books, sales books, etc., as the use of columnar books in such cases will necessitate books of an unwieldly size.

The accounts may be sectionalized in many ways as may be found most suitable to the requirements of the business. Some houses sectionalize territorially, as: New York ledger, Pennsylvania ledger, Ohio ledger, etc., etc. Some sectionalize alphabetically, A-F ledger, G-K ledger, L-R ledger, S-Z ledger.

A very frequent sectionalization is by departments, as wholesale ledger, city; wholesale ledger, foreign; retail ledger, etc., etc.

Where sales tickets are used it will be found useful to have different colored tickets for each section.

Where there are a number of sections it is also found useful to carry the separate adjustment accounts in the general ledger, and group them in the private ledger for the benefit of the principals, or officers of the company, thus:

For further explanation of the uses of ledger adjustments, or balance accounts, we quote from Dicksee's "Book-keeping for Company Secretaries" as follows:

"The details in connection with adjustment accounts vary under different circumstances, but the general principle is that each separate ledger should be so arranged as to possess within itself all the necessary materials for a complete trial balance. That is to say, each departmental

| DATE | | FOLIO | DEBITS | | MO. DEBITS | | DR. BALANCE | | DATE | | FOLIO | CREDITS | | MO CREDITS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/31 | Balances | | | | | | | | | | | | | | |
| | N.Y. Ledger | | | | | | 3562 | 31 | | | | | | | |
| | Pa. " | | | | | | 2758 | 98 | | | | | | | |
| | Ohio " | | | | | | 6875 | 60 | | | | | | | |
| 4/30 | Journal | | | | | | | | 4/30 | Cash | | | | | |
| | N.Y. Ledger | 178 | 10785 | 30 | | | | | | N.Y. Ledger | 234 | 8765 | 14 | | |
| | Pa. " | 178 | 4580 | 25 | | | | | | Pa. " | 234 | 2219 | 75 | | |
| | Ohio " | 180 | 8972 | 60 | | | | | | Ohio " | 234 | 7550 | 20 | | |
| | Cash | | | | | | | | | Journal | | | | | |
| | N.Y. Ledger | 235 | 475 | 25 | | | | | | N.Y. Ledger | 178 | 1118 | 75 | | |
| | Pa. " | | | | | | | | | | 178 | 652 | 60 | | |
| | Ohio " | 235 | 96 | 50 | 24834 | 60 | | | | Ohio " | 180 | 876 | 25 | 10984 | 85 |
| | Balances | | | | | | | | | | | | | | |
| | N.Y. Ledger | | | | | | 10940 | 11 | | | | | | | |
| | Pa. " | | | | | | 4446 | 62 | | | | | | | |
| | Ohio " | | | | | | 7716 | 25 | | | | | | | |

ledger should contain a 'general ledger adjustment account,' while the general ledger should contain an adjustment account for each of the departmental ledgers. To the adjustment accounts in the various departmental ledgers are posted contra entries for every single entry that occurs elsewhere in that particular ledger; but, of course, these contra postings are not made in detail, but in totals, as otherwise an enormous amount of labor would be involved. In the same manner the various adjustment accounts which occur in the general ledger each contain the contra entries of such other entries as are entered in the general ledger, and which—but for these adjustment accounts—would not have any contra entry at all in that particular ledger. Thus the total of the sales is posted to the sales account in the general ledger; the corresponding debit of this entry would be the debit to the customers in the sold ledger.

"When 'self-balancing' ledgers are used, however, the practice is as follows: The various items are still debited to the customer in the sold ledger, and the total sales posted to the sales account in the general ledger. In addition, however, the double entry of the sold ledger is completed by the monthly total of the sales being posted to the credit of the general ledger adjustment account in the sold ledger; while the double entry of the general ledger is completed by the monthly total of the sales, in addition to being posted to the credit of the sales account, being also posted to the debit of the sold ledger adjustment account in the general ledger. All other transactions are treated in a similar manner. Where there is a considerable number of sold ledgers, a separate adjustment account is usually kept for each.

"From what has been said it will be seen that the entries which occur in the general ledger adjustment account in the sold ledger will be identical with the entries which occur in the sold ledger adjustment account in the general ledger; and that therefore the balance of these two adjustment accounts will always be the same if the books are correct. But the balance will fall upon different sides, namely, upon the credit side of the account in the sold ledger, and upon the debit side of the account in the general ledger. If these two balances agree, one may feel reasonably satisfied that the postings are correct, provided each ledger separately balances; but in the event of their not agreeing it ought to be comparatively a very simple matter to trace the difference, because not only should the balance of the two accounts agree, but each separate item should be the same.

"To make this clear the following example of these adjustment accounts is appended:





GENERAL LEDGER (ADJUSTMENT) ACCOUNT.

| Dr. | | | £. s. d. | Cr. | | | £. s. d. |
|---|---|---|---|---|---|---|---|
| 1896. | | | | 1896. | | | |
| Oct. 31 | To | Cash | 700 0 0 | Oct. 1 | By | Balance | 1,500 0 0 |
| Nov. 30 | " | Discount | 20 0 0 | Oct. 31 | " | Sales | 1,200 0 0 |
| | " | Discount | 20 0 0 | Nov. 30 | " | Sales | 900 0 0 |
| | " | Returns | 40 0 0 | Dec. 31 | " | Sales | 700 0 0 |
| Nov. 30 | " | Cash | 800 0 0 | | | | 4,300 0 0 |
| | " | Discount | 25 0 0 | | | | |
| | " | Returns | 20 0 0 | 1897. | | | |
| Dec. 31 | " | Cash | 600 0 0 | Jan. 1 | By | Balance down | 1,250 0 0 |
| | " | Discount | 15 0 0 | | | | |
| | " | Returns | 30 0 0 | | | | |
| | " | Bills Receivable | 750 0 0 | | | | |
| | " | Bad Debts | 50 0 0 | | | | |
| | " | Balance down | 1,250 0 0 | | | | |
| | | | 4,300 0 0 | | | | |

SOLD LEDGER (ADJUSTMENT) ACCOUNT.

| Dr. | | | £. s. d. | Cr. | | | £. s. d. |
|---|---|---|---|---|---|---|---|
| 1896. | | | | 1896. | | | |
| Oct. 1 | To | Balance | 1,500 0 0 | Oct. 31 | By | Cash | 700 0 0 |
| Oct. 31 | " | Sales | 1,200 0 0 | | " | Discounts | 20 0 0 |
| Nov. 30 | " | Sales | 900 0 0 | | " | Returns | 40 0 0 |
| Dec. 31 | " | Sales | 700 0 0 | Nov. 30 | " | Cash | 800 0 0 |
| | | | 4,300 0 0 | | " | Discounts | 25 0 0 |
| | | | | | " | Returns | 20 0 0 |
| | | | | Dec. 31 | " | Cash | 600 0 0 |
| 1897. | | | | | " | Discounts | 15 0 0 |
| Jan. 1 | To | Balance down | 1,250 0 0 | | " | Returns | 30 0 0 |
| | | | | | " | Bills Receivable | 750 0 0 |
| | | | | | " | Bad Debts | 50 0 0 |
| | | | | | " | Balance down | 1,250 0 0 |
| | | | | | | | 4,300 0 0 |

GENERAL PRINCIPLE OF ADJUSTMENT ACCOUNTS.—Before leaving the question of adjustment accounts as a means of balancing ledgers separately, it is well to call attention to the following points which, no doubt, will help to clear up any difficulties which may be experienced in understanding the application of the general principle.

The mere fact that one ledger is divided into two or more books does not ipso facto alter its nature. The ledger, as a whole, still records the double effect of each transaction. At any time the sum of its debits will, therefore, always equal the sum of its credits. Consequently, a trial balance of a set of ledgers can always be taken out by abstracting every balance, and the total of the debit balances will always equal the total of the credit balances if the postings are correct. There is thus no difficulty in testing the accuracy of a set of ledgers, provided all the ledger balances

are extracted. On the other hand, when there is more than one ledger—or, at all events, when there are more than two or three ledgers—it will very soon be found that the number of balances is so large that, when the trial balance does not agree, it is a very difficult matter to localize the error. Hence, it is very desirable that there should be some means of verifying the accuracy of each ledger separately, and it is for this purpose that the adjustment accounts are introduced. Incidentally it may be mentioned, however, that they are, in practice, particularly valuable, because, by their means, trade ledgers (which usually contain the heaviest amount of posting) may be separately balanced, not only when a general balance is being struck, but also from time to time throughout the year. In practice it is usual for them to be balanced at least once a month, and without adjustment accounts this could not be done without balancing all the books monthly.

Practical Working of Adjustment Accounts.—With regard to the practical working of the adjustment accounts, it is necessary that those subsidiary books from which the various ledgers are posted should either be in separate sets (one set for each ledger), or else they should be of the columnar order, a separate column being devoted to the postings which have to go into each ledger. In practice by far the most convenient way is to have separate day books for each ledger; but with regard to the cash book, it is sometimes best to have one of the columnar type, while, in other cases, separate subsidiary cash books are more convenient. With regard to transfers from one ledger to another, these may be conveniently passed through a transfer journal; and for all practical purposes, it will be quite sufficient if the contents of this transfer journal are analyzed at the end of each month, and posted to the various adjustment accounts.

"The chief difference in the system of book-keeping, where adjustment accounts are used, will be with regard to the general ledger. Ordinarily speaking, the general ledger is posted up from the totals of the various day books and the general cash book, and in the case of most trading or manufacturing undertakings the number of journal entries will be very few. It is not really necessary that the number should be increased because adjustment accounts are used, as the necessary postings of day book totals can still just as easily be made from the day books direct as through the journal; but as, in employing self-balancing ledgers, two entries have now to be made in the general ledger itself, it is, perhaps, desirable that journal entries should be made to enable this to be done."

Questions sometimes arise where there are branch businesses as to the adjustment of differences between the main office and the branches on account of goods and cash in transit which have been charged by the main office on a certain date (the books being closed on that date), but have not been credited by the branch office on account of their not having been received on that date. In such a case, the financial statement of the business, which would be a summary of the accounts of the main office, to-





gether with the branches, would not be disturbed, and it would be only necessary to record the fact that certain merchandise or cash had been shipped to such a branch and was at the date of preparing the statement in course of transit.

### (15) Adventure Account.

A ledger account recording the transactions of a commercial enterprise outside of the regular line of business, undertaken alone or in copartnership with another party who shares the proceeds or losses.

Example of Adventure Account. A corpooration purchases jointly with another a large invoice of goods, the first company agreeing to finance the account, and the other to handle the selling end of it, the profit from the sales to be divided equally between the two corporations. The first corporation pays for the merchandise invested in, being assisted in so doing by the sum of $3,000 received from the second corporation. The total paid for the merchandise is $11,000, $3,000 of which is paid by the second corporation, and $7,890 of which is paid by the first corporation, who take advantage of a cash discount of 1 per cent, the total making $11,000. How should this investment be recorded? One very simple method would be as follows:

Carry a memorandum investment account. To this investment account charge the amount paid for merchandise and the charges for interest, storage, and commission. Credit same with 1 per cent discount and the gross sales. The balance of this account will then show the profit jointly made on the investment.

In the books of account proper open "Smith and Jones investment account." Charge same with the amount of the total investment, $11,000, when making payment for the goods, the credit being to cash. Charge Jones with his share of the investment, $5,500, and credit investment account. Credit Jones with the $3,000 received on account of investment, the charge being to cash. Also credit the investment account with the 1 per cent discount, the charge being to cash.

When Jones renders his account of sales, which we will say amounts to $14,000, less $750 paid out for interest, storage and commission, verify same and obtain his check for the amount due, which on the above basis would be $9,070, crediting $2,500 to balance Jones' account, and $6,570 to investment account. Investment account will then show a profit of $1,180, which will be one-half of the total profit of $2,360.

If the charges for interest, storage and commission are paid by Smith instead of Jones, it will, of course, increase the amount due by Jones.

### (16) Advertising Account.

An account containing a record of advertising expenditures, the balance of same being transferred at the end of each statistical period to the debit of the selling expense section of profit and loss account.

In an advertising agency business the advertising account performs the same function as the sales account in an ordinary business.

(17) APPROBATION SALES ACCOUNT.

Goods delivered to customers on approval—that is, on the understanding that they may be returned without charge if found unsatisfactory.

Such sales should be kept in a separate memorandum sales book until disposed of. If the goods are retained by the customer, they should be entered in the regular sales book; if returned, a memorandum to that effect should be made in the approbation sales book.

In all large businesses where there is danger of approbation sales being overlooked, it is advisable to open an account called "Approbation Sales." To this account charge all goods sent out and credit all goods returned, and

Approbation Sales.

| Date 1904 | | | Folio | Debits | | Balance | | Credits | | Folio | | Date 1904 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 25 | Driver #10 | 85 | 147 | 50 | | | | | | Driver #10 | 2 | 25 |
| | | " #11 | 86 | 78 | 50 | | | 125 | — | 115 | Cash | | |
| | | | | | | | | 22 | 50 | 888 | Returns | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

goods charged in the regular sales book. The balance of this account will thus always show the value of goods out on approbation. A special form of bill can be used in duplicate, the original being handed to the customer with the goods, and the duplicate being retained as a record. The bills can be so devised as to perform the functions of an approbation sales book as above mentioned; thus saving the labor of making entries in a bound volume.

In most businesses these departments, and the records of same, are not as satisfactory as they might be, and the attention of those who are obliged to send out goods to their patrons in this way is particularly directed to the form here presented.

Sales on approbation sometimes remain out quite a long time, and where monthly statements of business conditions are required this record will be appreciated as giving full information in the best possible way.

Regular sale checks are used by the store clerks for this class of sales, but they are printed in a distinctive color and carry a distinctive series of numbers.

In most establishments we suppose posting would be made direct to customers' accounts from the "on credit" column and the total of that column dissected into departments, and the departmental totals posted to the credit of the regular sales accounts at the end of the month.





(18) ASSET ACCOUNTS.

Those accounts which record the value of property, possessions and resources.

(19) BALANCE ACCOUNT.

A summary account into which at a given date the balances of other accounts are transferred. See "Adjustment Account."

(20) BALANCING ACCOUNTS.

The computation and entry of balances of ledger accounts when preparing for closing of books or making a trial balance.

(21) BANK ACCOUNT.

A general ledger account to which is posted at the end of each month the balance of cash at bank.

An account of moneys deposited with and withdrawn from a bank. One of the most common methods of keeping this account is to make the record of deposits and withdrawals on the stub of the check book, which should be specially ruled so as to conveniently provide for the record of deposits on the reverse of the stub, and permit footings of checks to be made with facility.

The check stubs thus form a check register, showing at the close of each day the balance at bank by the simple process of deducting the totals of checks from the totals of deposits. The footings should be carried forward to the end of the month before striking a new balance on the stub, for the reason that, if any error is made, the bringing forward of a new balance every day obstructs its discovery.

The separate check register is an amplification of the stub record, and is often developed into a bank cash book where all receipts are deposited, the general cash book in this case becoming only a record of minor expenditures.

The bank account is frequently kept in either cash book, or journal, separate columns being provided, both debit and credit, headed "Bank." The totals of deposits is entered daily in the proper column from the deposit slips (which are filed for reference) and the total of checks issued is also entered daily. The entering of checks in detail in the bank column is unnecessary and profitless labor, and the grand totals only of the bank columns should be posted to the ledger at the end of each month for trial balance purposes.

The ideal method of treating bank account is to utilize it as a preventative of defalcation by depositing all receipts, and making all payments by check except petty expenditures, and this method is now quite extensively used. Exchange and discount will be charged through the cash book, so that the balance of the cash book must always agree with that of the bank pass book.

A petty cashier has charge of necessary incidental cash payments, which are recorded in a petty cash book. He is supplied with money by

checks drawn to his order, the amounts of which are charged to his account, while he is credited with approved expenditures.

Checks drawn to his order should cover the exact amount disbursed from date of last check, as by this method any unusually large expenditures would at once attract attention.

(22) BANK DEPOSIT ACCOUNT.

It is often lost or mislaid and confusion arises when a new one is issued and the older one is found and presented for balancing by mistake.

Bank examiners can never secure all the pass books for the purpose of securing proof of correctness of each separate account.

Counter errors in posting sometimes are not discovered for weeks, as the pass book is the final means of locating the same.

If some method of reconciling accounts between banker and dealer can be offered overcoming these imperfections, it is the belief of many students, that it would be gladly accepted in many places.

The individual ledger department of the bank could be arranged in the following manner for a business of from fifteen hundred to two thousand accounts, with an average number of twelve to fifteen hundred items per day and a total deposit balance of about two million or more dollars.

In account with Standard National Bank Jackson, Maine.

7 Vouchers returned James Smith & Co.

James Smith & Co. Account Rendered Feby 17th 1904

| | Checks | Checks | Checks | Checks | | Date | Deposits | Date | Balance |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 72 | | | | 1904 Balance | Feb 2 | 1125 50 | 4 | 1854 |
| 2 | 16 28 | | | | | 6 | 129 24 | 6 | 904 |
| 3 | 17 | | | | | | | | |
| 4 | 24 | | | | | | | | |
| 5 | 29 74 | | | | | Credits | 1254 74 | | |
| 6 | 100 | | | | | Checks | 350 74 | | |
| 7 | 150 | | | | | Balance | 904 | | |

First—The chief clerk, who has full charge of the department. He will receive all material, morning exchanges, letter items, deposit tickets and other items from the various parts of the bank. He will deliver to all dealers their statement sheets and vouchers, and will meet and answer all inquiries. He will file all vouchers and all deposit tickets, receiving assistance when necessary.

Second—Two ledger keepers, who will examine indorsements on morning exchange checks. They will post and prove ledgers, posting from checks and deposits, with discounts on green tickets, collections on blue and receiving teller's deposits on white ones. The balances of the ledger accounts will be compared with the customers' statements' sheet the next morning by exchanging ledgers, in order to guard against collusion or error of design or accident.

Third—Two (or perhaps three) statement clerks, who will check off from slips received with the morning exchanges; they will compare "Payment stopped" items and sort checks for posting. Will list on adding





machine for cash proof. They will write up items on statement sheets, as shown herewith, for return to customers and stamp vouchers paid. They will extend balances of all sheets, having transactions of the day, in balance column provided and call back to book-keeper the next morning such balances only.

When a customer calls for his vouchers and statement of account, the chief clerk gives the name to the statement clerk, who will at once complete the sheet and hand it to the book-keeper to note on the ledger the number of vouchers returned against the corresponding balance and then the sheet will go to the chief clerk, who has, in the meantime, taken vouchers and deposits from the file, counted and placed vouchers in envelope and deposit tickets in rack for permanent filing. He tears, at the perforation, the sheet, places in envelope and gives to the dealer. At his leisure he starts a new sheet with balance and date for statement clerk's next transactions.

The customers' deposit when made could be receipted for in any one of three or four ways. A form of receipt could be attached to the regular debit ticket form by perforated edge. A memoranda pass book, similar to the style now used, could be carried simply to secure entry of deposit. A form of receipt could be filled out by the receiving teller. Acknowledgment by mail could be used.

The system outlined above will give the dealer the "statement of account" at once, without delay or unnecessary confusion.

The sheets are always neat, clean and fresh, for if a dealer does not call frequently enough, the vouchers can be sent to him by mail.

The examiners can always compare the accounts, or any one or more, and feel sure there is no danger of any mistakes or other means of loss, because of the absolute impossibility of securing all pass books, and this can be done very rapidly with but little interference with the routine work.

No lost or mislaid accounts is self evident.

No collusion would be possible between any two clerks or with a dealer and book-keeper, as the statement written up by one man is checked by one book-keeper when called back and by the other when delivered to chief clerk for final disposal.

No counter errors in posting would be likely to occur, for two men are proving the same transaction and the chief clerk verifies the number of items on delivery to dealer.

This system is not intended to save or reduce labor or time but to give better results with the same expenditure of time and labor.—F. Mead.

(23) BILLS PAYABLE ACCOUNT.

A representative account in which is kept a record of the amount of bills payable issued in settlement of liabilities, the amounts paid on same, and balance due.

Bills Payable Account.

| Date | | | Folio | | Debits | | Balance | | | Credits | | | Folio | | | Date | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1 | L. Landis | 120 | 3. | 175 | | | | | 85 | | 1 | 81 | S. Walker Co. | | 1 | 26 |
| | | | | | | | | | | 120 | 50 | 2 | 96 | D. Hegders Co. | | 2 | 8 |
| | | | | | | | | | | 175 | | 3 | 107 | L Landis | | 3 | 11 |
| | | | | | | | | | | 60 | | 4 | 108 | W. Dugson Co. | | 3 | 6 |
| | | | | | | | 265 | 50 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

The check numbers in the illustration are provided with a view to doing away with the prevalent system of debiting the payment of the bill opposite the credit entry; likewise in Bills Receivable account crediting the payment opposite the debit entry. This very considerably increases the trouble of getting out the trial balance, and mistakes are very liable to occur through overlooking the debit or credit which should enter into the trial balance of the particular month on which the work is being done. By using the check numbers, reference to the bill paid is easily made and the monthly trial balance is in no way interfered with.

(24) BILLS RECEIVABLE ACCOUNT.

A ledger account showing in detail or in totals the amounts of bills, promissory notes, etc., received from customers or debtors; the amount paid on same and balance outstanding.

The proper manipulation of bills receivable account and bills receivable register, or record, is so closely interwoven that it is necessary to treat them together. The proper end in view is to devise a system that shall always give complete information promptly when required and dispense with needless labor. Many plans have been evolved to accomplish this, including the combination in one book of the features of register and ledger. This will be considered later on under the head of "Bills Receivable Ledger."

Where the ordinary bills receivable account is carried in the ledger, we would recommend the use of key numbers instead of endeavoring to write the credit directly opposite the charge when the bill is paid. The latter method results in great inconvenience when taking off the trial balance, which is entirely obviated by the use of key numbers. We append an example of bills receivable account to illustrate the idea.

Bills Receivable %

Dr. Cr.

| Date | No. | Name | Folio | Amount | Date | No. | Name | Folio | Key | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| 1898 July | 1 | C. Jones | 30 | 100 00 | 1898 Aug. | 1 | Wm Brown | 35 | 3 | 300 00 |
| | 5 | 2 C.D. Smith | 32 | 400 00 | Sep. | 4 | 2 Adahnson | 60 | 5 | 700 00 |
| | 8 | 3 Wm Brown | 35 | 300 00 | Oct. | 3 | 3 E.M. Beach | 80 | 6 | 500 00 |
| Aug. | 3 | 4 T. Titus | 49 | 800 00 | | | 4 Balance | | | 1300 00 |
| | 4 | 5 Adahnson | 32 | 700 00 | | | 5 | | | |
| Sep. | 3 | 6 E.M. Beach | 70 | 500 00 | | | 6 | | | |
| | | | | $2800 00 | | | | | | $2800 00 |





(25) BILLS RECEIVABLE SUSPENSE ACCOUNT.

An account to which are transferred doubtful or uncollectible bills receivable, in whcih account they are retained until it is decided to charge them off to profit and loss.

(26) BOOK ACCOUNT.

A ledger account. An account receivable (generally).

(27) BUILDINGS ACCOUNT.

A general ledger asset account. The relation to this account of dilapidations, depreciations, maintenance, repairs, renewals, etc., will be considered under the head of "Depreciation."

(28) CAPITAL ACCOUNTS.

An account in the general ledger showing:

(a) The net investment of the single proprietor or partners in a business.

(b) The total of stock authorized for issue, or of stock usually subscribed for in connection with corporations. (See Capital.)

(29) CASH ACCOUNTS.

A general ledger account to which is posted at the end of each month the balance of cash on hand. This is considered desirable, for the reason that the items included in the balance sheet should consist of actual balances obtained from the regular ledger accounts.

(30) CASH AND BANK ACCOUNT.

An account to which the balances of both cash on hand and cash in bank are posted in one total for closing purposes and transferred to the balance sheet.

This is one of the most important elements of the accounting system of any business. The man who handles the cash holds a very responsible position, and is always surrounded by more or less checks on his work.

The double entry cash book carries receipts on the left hand page and payments on the right hand page, and is self-proving by inclusion of the balances on hand at the commencement and close of any particular period.

Where businesses are very large and the detail is very great separate books are used for cash receipts and cash payments, each book being in charge of a separate clerk. For facility of posting, it is frequently arranged that there shall be alternate cash books, one being used for Mondays, Wednesdays and Fridays, and the other for Tuesdays, Thursdays and Saturdays.

The debit and credit to cash on double entry cash books is usually referred to as "automatic." This is explained by the following illustration of cash account:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Jan. 2. | Cash on hand | $ | 750 00 | Jan. 2. | Cash Payments | | 65 50 |
| Jan. 2. | Cash Receipts | | 200 00 | Jan. 3. | Cash Payments | | 126 00 |
| Jan. 3. | Cash Receipts | | 450 00 | Jan. 5. | Cash Payments | | 468 00 |
| Jan. 5. | Cash Receipts | | 600 00 | Jan. 31. | Cash Payments | | 75 00 |
| Jan. 31. | Cash Receipts | | 290 00 | | Bal. on hand | | 1,555 50 |
| | | $ | 2,290 00 | | | $ | 2,290 00 |

On Saturday, Dec. 31st, the ledger account shows a debit to cash to $750. If, therefore, all the above items are posted to cash account in detail or in daily totals, the result would be a debit balance on Jan. 31st of $1,555.50, but in order to save trouble and unnecessary labor, it is usual tc simply rule a line under the "balance on hand" Jan. 2, $750, the next posting being the balance on Jan. 31st of $1,555.50. This amount is incorporated in the trial balance, and this entry answers every purpose, it being understood that cash has been debited with all the receipts on the cash book, and credited with all the payments, leaving $1,555.50 on hand. An other method is to post the total of the cash received on "debit to cash' side for the month to the debit side of cash account, and to post the total of cash paid or credit to cash side at the end of the month to the credit of cash account, which furnishes the same balance for incorporation as the trial balance.

The method of dividing cash account into main cash and petty cash with separate books for each will be treated under the heading of "Petty Cash."

One of the best methods of arranging the cash department of a business is the following:

Deposit all receipts and credits, and the bank pass book will then always equal the receipts in the cash book less exchange.

Pay everything by check, with the exception of small incidental expenses.

Draw checks for currency to meet incidental expenses and provide a separate column for such payments, charging the cashier with the amount of checks drawn for this purpose, and holding him responsible to furnish vouchers for all disbursements.

For the purpose of checking the amount of receipts entered on the cash book, a method frequently adopted is for the officer or other person who opens the mail to make a memorandum of the chceks, money orders, notes, etc., contained in the envelope which he opens, and some time thereafter this memorandum is compared with the entries on the cash book.

In some businesses the cashier is permitted to carry an "over and short" account, to which are debited or credited differences for which he is unable to account. This is certainly conducive to carelessness, and the practice is to be discouraged. While it may not be strictly equitable, yet it has been found that the best method of making the cashier equal to his responsibilities is to charge the account with all shortages and to credit any overages to the profit and loss until accounted for.

The best method of treating cash sales will be found under that heading

The cash book usually shows a balance o fcash both on hand and at bank, but there are many different methods of arranging this form of record.

Sometimes the cash balance shows the total of cash on hand and at bank in one amount, but the check register, or stub, of check book must





be consulted to find how much is on hand and how much is at the bank.

Sometimes bank columns are provided on each side of the cash book, and when this is the case, bank deposits are usually entered on the cash paid side as a charge to the bank, while the amount of checks issued are entered in the bank column on the cash receipt side as a credit to the bank; thus reversing the method used in the eame book in regard to cash on hand. Where cash on hand and at bank are distinguished in this way, we think the same rule should apply to both, that the deposits in bank should be entered in the column adjoining the cash receipts, and that the record of checks issued should be entered in the column on the cash paid side adjoining the payments. This will be found particularly convenient where it is the practice to deposit all receipts and make all payments by check, using the petty cash book for incidental expenditures. The deposits in the bank

Where the bank withdrawal column is placed on the cash received side of the cash book and the bank deposit column on the cash paid side of the cash book, it is interesting to note the actual course of the entries. Under these circumstances the cash received side will contain entries of the following different descriptions:

column will then equal the amount of receipts and the total of the bank withdrawal column will equal the total of the checks issued.

When bank columns are used it is scarcely necessary to say that the itmes of receipts and payments should not be entered in detail in the bank columns, as this, of course, involves double entries for every amount. Not more than one entry in the bank withdrawal column should be made per page, and only the total of each deposit should be entered in the bank deposit column.

1. Credits to customers for value received.
2. Debits to cash for same.
3. Credits to bank for cash paid out obtained from cash at bank. Inasmuch as cash in the office safe and cash at the bank are equally available and constitute part of the same fund, it does not seem consistent to debit and credit cash on the same side of the cash book.

### (31) Columnar account books.

A title applied to books of account in which separate columns are provided for accounts to which there are a large number of charges or credits per month. The totals of these columns are posted at the end of the month, thus saving the time and labor of posting the items in detail day by day. The columnar arrangement is now largely used on cash books, journals, department sales books, voucher records and all books of statistical record.

### (32) Commission account.

A general ledger account recording amounts of commission paid or earned.

### (33) Consignment accounts.

The accounts of consignees of the goods received for sale on consignment should be carried in a separate consignment book, from which the

account sales can be made to the consignor when required, showing amount of goods sold and commission gained on same. The value of goods sold only should be entered on the regular books of account as a liability to the consignor, thus avoiding complications.

The actual forms of consignment records and consignment ledgers vary with different businesses, but the following method combines both sales book and ledger and stock book features obtained on ordinary ledgers with double columns on each side. In the outer column on the credit side enter value of goods received on consignment and state quantities in the "particulars" column. As goods are sold enter same on the debit side, giving quantities, date, folio of sales book, and value in inner column. When account sales is made enter date and amount in outer column on debit side. On rendering account sales enter quantity of goods on hand in "particulars" column and value in inner column on credit side, which will thus be the balance of account at that date. This account will then always show:

Amount of sales.
Amount on hand,
Total value of consignment,
Amount accounted for to consignor.

Where the business is large a consignment account should be opened, not only with each consignor, but with each kind of goods consigned.

As stated above, the amount due consignor should be transferred to the main books of account as each account sales is rendered, thus entering on the books only the actual liabilities, the debit being to purchases, the sales of goods to customers being charged in the usual way, crediting sales account.

In large consignment or commission businesses the use of columnar sales books will be found of great advantage, one column being provided for charges to customers, and separate columns for the distribution of the different kinds of goods purchased, separate trading accounts being kept with each class of goods. Those trading accounts will include both sales and purchases, being debited with the value of goods sold, and credited with the amounts charged to customers. In this way each trading account will exhibit the profit made on each kind of goods carried on consignment. All charges and expenses connected with the consignment are also charged to the trading account so that it may exhibit net proceeds. When account sales are rendered commission account will be credited with the commission earned, which will be charged to the consignors.

Where the consignment business is carried on in connection with a regular mercantile business, it is useful to provide a separate column in the sales book for consignment sales, distinguishing them from the regular sales.

### (34) CONSTRUCTION ACCOUNT.

An account which carries the cost of erecting and equipping buildings, construction of railroads and public works of all kinds, building of vessels, etc.





CONSTRUCTION ACCOUNT OF AN ELECTRICAL CO.

Land.
Station and Buildings.
Motive Power.
Arc Apparatus.
Incandescent Apparatus.
Power Apparatus.
Pole-lines.
Installations.
Conduits.
Cables.

### (35) COPYRIGHT ACCOUNT.

An account recording the cost of copyrights secured. Usually treated as a passive asset on account of the difficulty of determining the actual value, this depending very much on the popularity of the publication copyrighted and the length of time the copyright has to run.

The treatment of copyrights on books of account is an important part of the detail of a publisher's business, and is very similar in principle to the treatment of good will, especially when a lump sum has been paid for the copyright. A copyright expires in accordance with law within a specified period, and while the value of the book or publication as a selling article may continually increase during the life of the copyright, it is the wisest course to gradually write off the copyright account, so that at the expiration of the copyright the extinguishment of the asset will not fall entirely upon one year's profits.

It often happens that on account of the popularity of a book the copyright actually appreciates during its life, but unless for purposes of sale no real benefit accrues from increasing the value of the asset on the books of the business. An authority on the subject states:

"It should be mentioned that there are items on the books of a private firm or joint-stock company to which no general rule of writing off is applicable. Such are the cost of good will, patents, trade marks, copyright designs, etc.; for although, as in the case of patents, the life of the asset is clearly defined, the incidental advantages derived from the possession, for a term of years, of a valuable monopoly do not necessarily cease upon the expiration of the term of the patent. On the contrary, the value of the good will may increase although the term of the patent is expiring. Assets such as those should be considered as having a combination value differing altogether from their value per se. The obvious rule, therefore, is that in the balance sheet such assets should appear at their cost value, and need not be written down unless their realizable value as integral parts of a going concern falls below their cost value."

### (36) CREDITOR'S ACCOUNT.

A purchase ledger or accounts payable account.

### (37) CURRENT ACCOUNTS.

A term sometimes applied to an itemized account or statement.
A live personal account.

### (38) CUSTOMER'S ACCOUNTS.

A sales ledger or accounts receivable account.

### (39) DEAD ACCOUNT.

A closed or non-active account. A bad debt.

### (40) DEFICIENCY ACCOUNT.

A term used to describe an account showing in detail how the deficit exhibited by the balance sheet of an insolvent trader or corporation was caused. Inasmuch as a deficit is also incurred over and above the amount of capital invested, it is apparent that deficiency account must be charged with both capital invested and deficit, and credited with all losses and impairments of values which make up that amount.

Or, it may be that on a given date there was a surplus which would also have to be accounted for.

EXAMPLES.

STATEMENT OF AFFAIRS, 1ST JULY, 1890.

| | | |
|---|---|---|
| **Liabilities—** | | |
| Unsecured Creditors | | $144,480 00 |
| Fully secured Creditors | $ 11,760 00 | |
| Hold securities values (at cost) at | 13,150 00 | |
| Estimated Surplus, per contra | $ 1,390 00 | |
| Partly secured Creditors | 188,485 00 | |
| Less value of securities (estimated at cost) | 90.490 00 | 97,995 00 |
| Liability on Bills Receivable discounted | $ 29,165 00 | |
| Estimated to rank for dividend at (say) | | 5,000 00 |
| Preferential Creditors for salaries and wages | 4,110 00 | |
| Deducted per contra | | |
| | | $247,475 00 |
| **Assets—** | | |
| Cash—At bankers | $ 400 00 | |
| Cash—In hand | 20 00 | $ 420 00 |
| Office furniture (cost $1,445) estimated at | | 1,000 00 |
| Accounts Receivable—Good | $ 6,705 00 | |
| Accounts Receivable—Doubtful ($850 estimated at) | 425 00 | |
| Accounts Receivable—Bad ($62,690.00 estd. of no value) | | 7,130 00 |
| Stock in trade Main Office (cost $6,530, estimated at) | | 6,000 00 |
| Stock in trade and (less sundry liabilities) at branches cost $171,110, less $28,190 estimated loss on realization | | 142,920 00 |
| Buildings, plant, steamers, and carrying craft (cost $154,715) estimated at | | 54,715 00 |
| Estimated surplus from securities (per contra) | | 1,390 00 |
| | | $213,575 00 |





| | | |
|---|---|---|
| Less preferential creditors | | 4,110 00 |
| | | $209,465 00 |
| Deficiency | | 38,010 00 |
| | | $247,475 00 |

DEFICIENCY ACCOUNT, FROM 1ST JULY, 1894, TO 1ST JULY, 1899.

| | | |
|---|---|---|
| Dr. | | |
| To Capital—July 1, 1894 | | $210,000 00 |
| To Profits, as per books, viz., | | |
| 1894-5 | $ 35,000 00 | |
| 1895-6 | 30,000 00 | 65,000 00 |
| | | $275,000 00 |
| Cr. | | |
| By losses as per books, viz.: | | |
| 1896-7 | $ 500 00 | |
| 1897-8 | 3,000 00 | |
| 1898-9 | 5,155 00 | |
| | | 8,655 00 |
| Drawings (at the rate of $22,500 per annum) | | 112,500 00 |
| Bad debts | | 62,690 00 |
| Estimated losses on realization, viz.: | | |
| Stock at main office | 530 00 | |
| Stock at branches | 28,190 00 | |
| Branch buildings, plant, etc. | 100,000 00 | |
| Office furniture | 445 00 | 129,165 00 |
| | | $313,010 00 |
| Deficiency | | 38,010 00 |
| | | $275,000 00 |

EXAMPLE OF DEFICIENCY ACCOUNT.

The firm of Warren, Smith and Pierce became involved in business difficulties and was compelled to stop payment. The accountants appointed to prepare a statement of affairs and a deficiency account presented the following details:

| | |
|---|---|
| Unsecured Creditors | $147,500 00 |
| Preferred Creditors | 750 00 |
| Rent | 500 00 |
| Accounts Receivable | 42,500 00 |
| (Of which $37,500.00 are considered good, $1,825.00 doubtful and estimated to produce $625.00, $3,125.00 bad.) | |
| Bills Receivable | 7,000 00 |
| Land and Buildings | 25,000 00 |
| Plant and Machinery | 8,500 00 |
| Stock on hand | 5,000 00 |
| Furniture and Fixtures | 1,500 00 |
| Cash | 15,000 00 |
| Sundry Profits | 37,500 00 |

| | |
|---|---|
| Sundry Losses | 80,000 00 |
| Trading Expenses | 17,500 00 |
| Warren's Capital Account | 5,000 00 |
| Smith's Capital Account | 3,750 00 |
| Pierce's Capital Account | 3,750 00 |
| Warren's Drawings | 10,000 00 |
| Smith's Drawings | 15,000 00 |
| Pierce's Drawings | 17,500 00 |

## SOLUTIONS.

STATEMENT OF AFFAIRS, WARREN, SMITH & PIERCE.

As at October 27, 1903.

| Liabilities, as stated and estimated by debtors. | | Expected to rank. |
|---|---|---|
| Unsecured creditors | | $147,500 |
| Rent | | 500 |
| Preferred creditors | 750 | |
| | | $148,000 |

| Assets, as stated and estimated by debtors. | | Estimated to produce. |
|---|---|---|
| Debtors, good | $37,500 | |
| Debtors, doubtful | 625 | |
| | | $ 38,125 |
| Debtors, doubtful | $ 1,250 | |
| Debtors, bad | 3,125 | |
| | $ 4,375 | |
| Bills receivable | | 11,250 |
| Land and Buildings | | 25,000 |
| Plant and machinery | | 8,500 |
| Stock on hand | | 5,000 |
| Furniture and fixtures | | 1,500 |
| Cash | | 15,000 |
| | | $104,375 |
| Less preferred creditors | | 750 |
| | | $103,625 |
| Deficiency | | 44,375 |
| | | $148,000 |
| Balance from statement of affairs | | 44,375 |

DEFICIENCY ACCOUNT.

| | | |
|---|---|---|
| Capital Accounts | | 12,500 |
| Warren | $ 5,000 | |
| Smith | 3,750 | |
| Pierce | 3,750 | |
| Profits | | 37,500 |
| | | $ 94,375 |





| | | |
|---|---|---|
| Drawings | | 42,500 |
| Warren | $10,000 | |
| Smith | 15,000 | |
| Pierce | 17,500 | |
| Losses | | 30,000 |
| Trading expenses | | 17,500 |
| Debtors | | 4,375 |
| | | $ 94,375 |

ANOTHER METHOD.

| Descriptions— | Assets. | Liabilities. |
|---|---|---|
| Debtors | $38,125 | |
| Good | $37,500 | |
| Doubtful | 625 | |
| Bills receivable | 11,250 | |
| Land and buildings | 25,000 | |
| Creditors unsecured | | $147,500 |
| Plant and machinery | 8,500 | |
| Stock on hand | 5,000 | |
| Furniture and fixtures | 1,500 | |
| Cash | 15,000 | |
| Preferred creditors | | 750 |
| Rent | | 500 |
| | $104,375 | $148,750 |
| Deficit | 44,375 | |
| | $148,750 | $148,750 |

| Capital Items— | Dr. | Cr. |
|---|---|---|
| Warren's capital | | 3,750 |
| Smith's capital | | 3,750 |
| Pierce's capital | | $ 5,000 |
| Partners' drawings— | | |
| Warren | $ 10,000 | |
| Smith | 15,000 | |
| Pierce | 17,500 | |
| | $ 42,500 | $ 12,500 |
| Balance, deficit | | 30,000 |
| | $ 42,500 | $ 42,500 |
| Profit and Loss Items— | | |
| Sundry profits | | $ 37,500 |
| Sundry losses | $ 30,000 | |
| Trading expenses | 17,500 | |
| Debtors | 4,375 | |
| | $ 51,875 | $ 37,500 |
| Balance to deficit account | | 14,375 |
| | $ 51,875 | $ 51,875 |

DEFICIENCY ACCOUNT.

| | |
|---|---|
| Balance of Capital items | $ 30,000 |
| Balance of Profit and Loss items | 14,375 |
| | $ 44,375 |
| Excess of liabilities over assets | 44,375 |
| | $ 44,375 |

The statement of affairs and its appendix, the deficiency account, is presented in two forms, A and B. Form A is ordinarily used in Great Britain, the English colonies and this country, whereas Form B is mostly in vogue in continental Europe.

(40a) DEPARTMENTAL ACCOUNTS.

The ledger trading accounts in which all departmental transactions are recorded, thus showing either gross or net profit at the end of each statistical period.

(41) DEVELOPMENT ACCOUNT.

A term frequently used to designate an account in the general ledger to which are debited organization or promotion expenses, discount on stock, etc.

(42) DISTRIBUTION ACCOUNT.

An account carried in an auxiliary book or record and consisting of special columns into which the items of general expense account from the regular ledger are distributed each month and the totals of these columns posted to separate accounts.

(43) DONATION ACCOUNT.

An account carried in the general ledger to record donations to charity, presents to employes, etc.

An account representing a donation of stock for services rendered. Such accounts are carried as assets until it is found convenient to transfer them to profit and loss, such transfer being frequently spread over a term of years.

(44) DOUBTFUL ACCOUNTS.

It is usual in this country to carry a suspense account, to which is transferred all doubtful and bad accounts. At the end of the year a certain proportion of these doubtful and bad accounts which are considered irrecoverable are charged off to profit and loss. Those remaining in suspense account are only taken as assets to the extent of perhaps 50 per cent of their face value. This does not in any way affect the question of a reserve for possible future losses in regard to accounts which have not been transfferred to a suspense account.

(45) EQUIPMENT ACCOUNT.

An account representing expenditures on equipment of rolling stock of railroads, machinery for manufacturing establishments, etc. This title





is not often used, as it is considered preferable to designate, by the names of the accounts, the different kinds of equipment purchased.

(46) ERROR ACCOUNT.

An account called "Error Account" is frequently opened in cases where a book-keeper, undertaking the duties of a new position, finds the books out of balance. On bringing the matter to the attention of his employers they will probably tell him to keep up the current work and endeavor to balance the books in his leisure intervals. In order, therefore, to have a clean start for his own work he opens an error account and charges or credits to same the amount of the difference between the debit and credit columns of the trial balance. He will then adjust by journal entry such errors as may be found from time to time in the work of the preceding book-keeper, charging or crediting error account until it is extinguished.

An adjustment account sometimes carried to which are debited the differences on the trial balance until the errors are discovered.

(47) EXPENSE ACCOUNT.

Expenditures which are not directly remunerative, and are therefore charged direct to profit and loss. Thus labor employed in manufacturing is termed productive expense as against office labor, which is not directly productive, although it shares in the general organization of the going business and should share in the credit of building up and maintaining that business as a going concern.

Different kinds of expenditures should not be dumped into a general expense account any more than different kinds of purchases, sales, goods returned, etc., should be dumped into a merchandise account. The intelligent merchant requires a comparative record of the different classes of his expenditures which will show if they are justifiable considering the volume of business, or if they are excessive and the result of a careless and lax administration.

Separate accounts should be kept with advertising, postage, salaries, express, selling expenses, etc., so that the fact of their being normal and not extraordinary may be ascertained at any time without the trouble of analyzing the expense account by drawing off lists of the different items under their separate headings.

Where a business is divided into departments, the cost of administration may be pro rated according to the volume of business done. If, for instance, certain employes are engaged in working for separate departments and an accurate account cannot be kept of the time spent by each employe in each department, then the cost of their services may be pro rated according to the amount of turnover of each department. Such percentages are frequently computed on gross sales, but it is considered preferable and more equitable to compute them on the turnover.

For the proper distribution of expense to trading and profit and loss accounts see "Trading Account" and "Profit and Loss Account."

Where the distribution of expense to different accounts would necessitate a large number of separate accounts, the following method has sometimes been adopted, although the advantages of such a system do not seem particularly obvious, as in the one case the distribution is made in the ledger by means of separate accounts, and in the other case the distribution is made in an auxiliary record book involving duplication of entries and work.

"In planning books for a manufacturing concern 29 sub-heads have been found. To open 29 accounts in the general ledger, would mean a heavy burden on the book-keeper, and a columnar arrangement of the cash book with a column for each sub-head would be too unwieldy.

"The plan adopted, therefore, in this case is as follows:

"There is but one 'expense' column in the cash book, the footings of which are carried along and posted but once a month to the expense account in the general ledger. This makes it easier for the trial balance, by far, than as if there were 29 separate expense accounts. Then there is a separate book for the 'distribution of general expense, etc.,' which is a sort of voucher record minus the voucher feature, and with this difference, that the names of accounts are printed one below the other at the left-hand margin of the page, instead of being printed across the top of the page. The rest of the page is ruled in columns, a column for a day, into which the items are entered daily opposite the proper names, and a daily footing made which must agree with the amount by which the expense account in the cash book has been increased.

"When the page is full a cross-addition is made of each account and the grand total proved by adding the several totals of columns on the page. The totals are forwarded to the next page, and at the end of the month transferred to the back of the book to columns headed January, February, etc. At the end of the year a grand summary is made by cross-addition. The monthly totals must agree with the expense account in the general ledger.

"With a little practice one can add across the page as quickly and as accurately almost as down the page."

The following advantages are claimed for this book:

First. The work is condensed and a large proportion of the space is utilized.

Second. The printer does most of the work. The book-keeper must only fill in the figures.

Third. It is much easier than posting to separate accounts, with none of the disadvantages and securing all the results of a separate account posting.

Fourth. It shows the expense statistics in tabular form week by week, month by month and year by year, and any desired reference or comparison can be made almost instantaneously.





Expense Journal.

| Month | Total | Office Supplies | Printing | Law Costs | Travlg Expense | Commission | Telephone & Telegraph | Repr. Light & Heat | Repairs | Taxes | Postage | Special Reports | Salaries | Freight | Express |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | | | | | | | | | | | | | | | |
| February | | | | | | | | | | | | | | | |
| March | | | | | | | | | | | | | | | |
| etc. | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

(48) ESTABLISHMENT EXPENSE ACCOUNT.

A term sometimes used to designate an account containing a record of indirect or overhead manufacturing expense.

(49) GUARANTEED ACCOUNTS.

Those accounts the full amount of which is guaranteed for realization when the sale of a business is affected or a consolidation of one or more businesses is made. In this case every deduction, rebate, discount, or uncollectible account must be charged to the guarantors and made good by them.

(50) IMPAIRMENT ACCOUNT.

A term sometimes used to designate a special account to which is transferred a portion of the balance of the profit and loss account, after which this amount is included in the balance sheet as an offset to capital, or as a fictitious asset to be gradually written off as opportunity offers.

If the capital stock is afterwards reduced, capital stock account is debited with the amount of the reduction and impairment account credited.

(51) IMPERSONAL ACCOUNT.

An account which represents conditions, and records the profits, losses, receipts, expenditures, assets and liabilities of a business, but does not represent persons.

Examples: General expense, manufacturing expense, freight, discount, interest, repairs, advertising, postage, adjustment, or controlling accounts.

(52) INCOME AND EXPENDITURES ACCOUNT.

An income and expenditure account is a statement showing total income received, or earned, and total expenditures disbursed, or incurred, during a specified period exclusive of capital receipts and payments. These would be included in a special statement of receipts and payments.

These forms of accounts are frequently used in making statements of the financial affairs of public institutions for publication. The income and

expenditure account verifies the surplus appearing on the balance sheet, and the receipts and payments account verifies the amount shown as being in the hands of the treasurer.

Examples are hereto appended:

INCOME AND EXPENDITURE ACCOUNT.

| Dr. | | Cr. | |
|---|---|---|---|
| Management expenses: | | Subscriptions | $4,400 00 |
| Salaries | $2,500 00 | Donations | 3,000 00 |
| Insurance | 80 00 | Interest and dividends | 442 00 |
| Commission | 250 00 | | $7,842 00 |
| Postage | 825 00 | | |
| Stationery, etc. | 475 00 | | |
| | $4,130 00 | | |
| Benevolent account: | | | |
| Provisions | $1,145 00 | | |
| Coals, etc. | 1,457 00 | | |
| Cash | 650 00 | | |
| | 3,252 00 | | |
| Surplus as per balance sheet | 460 00 | | |
| | $7,842 00 | | |

RECEIPTS AND PAYMENTS ACCOUNT.

| | | | |
|---|---|---|---|
| On hand Jan. 1, 1900 | $ 478 50 | Management expenses | $3,670 00 |
| Legacies | 500 00 | Benevolent fund | 3,252 00 |
| Subscriptions | 3,750 00 | "Industrials" investment | 1,000 00 |
| Donations | 3,000 00 | On hand Jan. 1, 1901 | 126 50 |
| Interest and dividends | 320 00 | | $8,048 50 |
| | $8,048 50 | | |

BALANCE SHEET.

| ASSETS. | | LIABILITIES. | |
|---|---|---|---|
| Cash in hands of Treas. | $ 126 50 | Accounts payable | $ 901 00 |
| Investments | 5,000 00 | Capital account (accumulated surpluses) | 15,943 00 |
| Real estate and building | 8,750 00 | Surplus for year 1900 | 460 00 |
| Furniture and fixtures | 2,465 00 | | $17,304 00 |
| Supplies on hand | 362 50 | | |
| Accounts receivable (unpaid subscriptions and dividends) | 600 00 | | |
| | $17,304 00 | | |

NEW YORK C. P. A. EXAMINATION—JANUARY, 1900. John Doe expends $100,000 in the erection of a business block; at the end of the year he finds that the rents of the stores in the block have amounted to $7,500 and of the offices, $3,750. The expenses of the year have been janitor, and care taker, $750; repairs and alterations to suit tenants, $500; water and





gas, $400; taxes, .01975 on a valuation of $87,000; various incidentals, $150. Make up a statement showing the result of the year's enterprise and per cent of profit on investment, after charging five per cent interest on the capital invested and $2,500 for depreciation.

SOLUTION.

STATEMENT OF INCOME AND EXPENDITURES INCOME.

| | | |
|---|---|---|
| Property situated at ——, value | $100,000.00 | |
| Rents of stores | $7,500 | |
| Rents of offices | 3,750 | |
| | | 11,250.00 |
| EXPENDITURES. | | |
| Repairs and alterations | $ 500.00 | |
| Water and gas | 400.00 | |
| Taxes | 1,718.25 | |
| Depreciation, 2½ per cent on property | 2,500.00 | |
| | | 5,118.25 |
| Gross profits | | $6,131.75 |
| Janitor's services | $ 750.00 | |
| Incidental expenses | 150.00 | |
| | | 900.00 |
| Net profits | | $5,231.75 |
| Allocation of Net Profits— | | |
| Interest on capital, 5 per cent | | 5,000.00 |
| Balance, unappropriated, carried forward | | 231.75 |

BALANCE SHEET.

| | | |
|---|---|---|
| Property | $100,000.00 | |
| Less 2½ per cent depreciation | 2,500.00 | |
| | | $ 97,500.00 |
| Cash | | 7,731.75 |
| | | $105,231.75 |
| Capital Account | | $100,000.00 |
| Interest, 5 per cent | | 5,000.00 |
| Profits | | 231.75 |
| | | $105,231.75 |

CASH ACCOUNT.

| | | |
|---|---|---|
| Store rents | $ 7,500.00 | |
| Office rents | 3,750.00 | |
| | $ 11,250.00 | |
| Janitor's services | $ 750.00 | |
| Repairs and alterations | 500.00 | |
| Water and gas | 400.00 | |
| Taxes | 1,718.25 | |
| Expenses | 150.00 | |
| Balance | 7,731.75 | |
| | $ 11,250.00 | |

Per cent profits on investment=.0023175.

(53) INDIVIDUAL ACCOUNT.

A name applied to customers, creditors, or other personal accounts.

(54) INSURANCE ACCOUNT.

To this account is debited premiums paid. It is closed into profit and loss at the end of the year, less unexpired portion at date of closing, the latter being included in the balance sheet as an asset, and carried forward on the ledger as a balance.

(55) INVENTORY ACCOUNT.

A general ledger asset account which records the value of commodities or other assets on hand.

The inventory of commodities although a general ledger debit, is a credit to the trading account, the old inventory being debited. (See trading account.) The amount of the inventory is debited to inventory account at the close of each month and treated in the same manner in the general ledger as the balance of cash account.

(56) INVESTMENT ACCOUNT.

An account representing moneys expended in property outside of the regular order of business. Thus, a surplus is sometimes invested in outside enterprises or in stocks, bonds, etc.

An account or accounts in which is carried by single proprietors or partnerships the net worth of the business.

(57) JOBBING ACCOUNT.

Personal accounts which include both sales and purchases, i. e.—a customer's account to which sales are debited and purchases credited.

On account of the difficulty found in obtaining correct statistics, while this method is followed, it is more usual to carry separate sales and purchase accounts in which to record transactions of this nature.

(58) LABOR ACCOUNT.

A general ledger account in which is recorded the amount of wages paid. This account usually belongs to manufacturing or trading account as being part of the cost of production.

(59) LEASE ACCOUNTS.

In the instalment business the contracts entered into with customers are frequently termed "leases," and the lease account assumes the same function as a sales account in an ordinary business.

(60) LIVE STOCK ACCOUNT.

A general ledger account which records the value of live stock owned by a business.

(61) LIQUIDATION ACCOUNT.

An account kept by liquidators of businesses or estates. A liquidator of an estate is usually employed by executors to settle up the various assets





and liabilities of a deceased proprietor or owner. In a liquidation account the liquidator debits himself with all assets turned over to him and credits himself with all liabilities to be paid out of the estate. As amounts are realized and liabilities paid off he credits himself with disbursements, so that the liquidation account will ultimately show the difference between the amount for which the liquidator is responsible and the amount realized and disbursed by him to the proper parties entitled to same.

## EXAMPLES.

New York C. P. A. Examination, June, 1898. A and B, partners in a mercantile business, share profits and losses equally. At the end of five years the partnership terminates by limitation and the balance sheet shows the following:

LIABILITIES.

| | | |
|---|---|---|
| Creditors | | $30,000.00 |
| Bills payable | | 10,000.00 |
| Capital: | | |
| A | $30,000.00 | |
| B | 15,000.00 | |
| | | 45,000.00 |
| | | $85,000.00 |

ASSETS.

| | |
|---|---|
| Plant and machinery | $15,400.00 |
| Invenetory | 36,000.00 |
| Accounts receivable | 28,000.00 |
| Cash in bank | 5,600.00 |
| | $85,000.00 |

Subsequently the business as it stands (except cash in bank) is sold for $30,000. Make final adjustments and closing entries, and show the amount each partner receives.

## SOLUTION.

JOURNAL ENTRIES.

1.

| | | |
|---|---|---|
| Realization and liquidation account | $79,400.00 | |
| To plant and machinery | | $15,400.00 |
| To inventory | | 36,000.00 |
| To accounts receivable | | 28,000.00 |
| To close ledger account. | | |

2.

| | | |
|---|---|---|
| Creditors | $40,000.00 | |
| To realization and liquidation account | | $40,000.00 |
| To close open ledger accounts. | | |

3.

| | | |
|---|---|---|
| A's capital | $ 4,700.00 | |
| B's capital | 4,700.00 | |
| To realization and liquidation account | | $ 9,400.00 |
| Partner's losses equally divided. | | |

REALIZATION AND LIQUIDATION ACCOUNT.

| | | |
|---|---|---|
| Assets | | $79,400.00 |
| Except cash | $ 5,600.00 | |
| | | $79,400.00 |
| Liabilities | | $40,000.00 |
| Per balancce sheet. | | |
| Cash | | 30,000.00 |
| Loss on realization | $ 9,400.00 | |
| A ½ share | $ 4,700.00 | |
| B ½ share | 4,700.00 | |
| | | 9,400.00 |
| | | $79,400.00 |

A'S CAPITAL.

| | | | |
|---|---|---|---|
| ½ loss on realization | $ 4,700.00 | Investmenet | $30,000.00 |
| Cash | 25,300.00 | | |
| | $30,000.00 | | $30,000.00 |

B'S CAPITAL.

| | | | |
|---|---|---|---|
| ½ loss on realization | $ 4,700.00 | Investment | $15,000.00 |
| Cash | 10,300.00 | | |
| | $15,000.00 | | $15,000.00 |

CASH ACCOUNT.

| | | | |
|---|---|---|---|
| On hand | $ 5,600.00 | A's capital | $25,300.00 |
| Realization and loss acct. | 30,000.00 | B's capital | 10,300.00 |
| | $35,600.00 | | $35,600.00 |

NEW YORK C. P. A. EXAMINATION, JANUARY, 1905. The Metropolitan Book Company, a corporation, goes into voluntary liquidation and the directors of the company, three in number, are designated trustees in liquidation.

Below is a trial balance of the Book Company as of July 1, 1903, the date when its affairs are turned over to the trustees:

| | | | |
|---|---|---|---|
| 1 | Capital stock | | $20,000 00 |
| 2 | Cash | $ 553 69 | |
| 3 | Office furniture | 1,666 92 | |
| 4 | Meter deposit | 60 00 | |
| 5 | Accounts receivable | 26,153 95 | |
| 6 | Rogers & Co. moneys collected for their account | | 14,738 00 |
| 7 | Notes payable | | 27,573 50 |
| 8 | Accounts payable | | 4,197 22 |
| 9 | Merchandise purchases | 27,404 74 | |
| 10 | Merchandise sales | | 8,045 35 |
| 11 | Expenses | 10,751 97 | |
| 12 | Surplus (deficit) | 7,962 80 | |
| | | $74,554 07 | $74,554 07 |





Value of merchandise on hand $20,183.86; other assets (items 3, 4 and 5) valued as in ledger.

Trustees' cash receipts and payments are as follows:

RECEIPTS.

| | |
|---|---|
| Balance on hand | $ 553 69 |
| Meter deposit | 60 00 |
| Office furniture sold | 487 90 |
| Accounts receivable collected | 22,872 75 |
| Additional collections for Rogers & Co. (in full) | 1,965 24 |
| Sales of merchandise | 22,090 70 |
| Commissions received from Rogers & Co. | 6,703 24 |
| | $54,733 52 |

PAYMENTS.

| | |
|---|---|
| Notes paid | $27,573 50 |
| Accounts paid | 4,197 22 |
| Merchandise bought | 562 55 |
| Expenses | 5,697 01 |
| Remitted to Rogers & Co. in full | 16,703 24 |
| | $54,733 52 |

Accounts receivable not collected are worthless. Prepare the account of the trustees in liquidation.

*Trustees' Realization and Liquidation Account of the Metropolitan Book Company.*

SOLUTION.

BALANCE SHEET AS AT JULY 1, 1903.

Assets.

| | |
|---|---|
| Cash | $ 553 69 |
| Office furniture | 1,666 92 |
| Meter deposit | 60 00 |
| Accounts receivable | 26,153 95 |
| Inventory | 20,183 86 |
| Surplus deficit | 17,890 30 |
| | $66,508 72 |

Liabilities.

| | |
|---|---|
| Capital | $20,000 00 |
| Rogers & Co. | 14,738 00 |
| Notes | 27,573 50 |
| Accounts | 4,197 22 |
| | $66,508 72 |

REALIZATION AND LIQUIDATION ACCOUNT.

Assets to be Realized.

| | | |
|---|---|---|
| Office furniture | $ 1,666 92 | |
| Meters deposit | 60 00 | |
| Accounts receivable | 26,153 95 | |
| Merchandise stock | 20,183 86 | $48,064 73 |

Liabilities Liquidated.

| | | |
|---|---|---|
| Notes | $27,573 50 | |
| Accounts | 4,197 22 | |
| Rogers & Co. | 16,703 24 | 48,473 96 |

Supplementary Charges.

| | | |
|---|---|---|
| Purchases and inventory | $20,746 41 | |
| Expenses | 5,697 01 | 26,443 42 |
| | | $122,982 11 |

Liabilities to be Liquidated.

| | | |
|---|---|---|
| Rogers & Co. | $16,703 24 | |
| Notes | 27,573 50 | |
| Accounts | 4,197 22 | $48,473 96 |

Assets Realized.

| | | |
|---|---|---|
| Office furniture | $ 487 90 | |
| Meter deposit | 60 00 | |
| Accounts receivable | 22,872 75 | |
| Merchandise stock | 20,183 86 | 43,604 51 |

Supplementary Credits.

| | | |
|---|---|---|
| Sales | $22,090 70 | |
| Commissions | 6,703 24 | 28,793 94 |
| Loss on realization | | 2,109 70 |
| | | $122,982 11 |

FINAL BALANCE SHEET.

| | |
|---|---|
| Deficit | $17,890 30 |
| Loss on realization | 2,109 70 |
| | $20,000 00 |
| Capital | $20,000 00 |

(62) LOAN ACCOUNT.

An account representing money invested on loans with or without collateral security.

(63) MACHINERY ACCOUNT.

A fixed asset account to which is debited cost of machinery purchased, or manufactured by a concern for its own shop, frequently included in plant account.

(64) MAINTENANCE ACCOUNT.

An account or series of accounts representing cost of repairs, renewals and replacements.

The maintenance accounts of an electrical railroad company are as follows:





REPAIRS.

WAY AND STRUCTURE.

Track and roadway.
Electrical line.
Buildings and fixtures.

EQUIPMENT.

Steam plant.
Electrical plant.
Cars.
Electrical equipment of cars.
Miscellaneous equipment.
Machinery and tools.

DEPRECIATION.

WAY AND STRUCTURE.

Track and roadway.
Electrical line.
Buildings and fixtures.

EQUIPMENT.

Steam plant.
Electrical plant.
Cars.
Electrical equipment of cars.
Miscellaneous equipment.
Machinery and tools.

(65) MANUFACTURING ACCOUNT.

An account to which is debited raw material, general supplies, wages and shop expense. As work is being performed in the factory, raw material, general supplies, wages and shop expense accounts are credited. After the job is completed manufacturing account is credited and finished goods account debited. By this method the balances of raw material and supplies accounts indicate the inventories should be on hand in the stores rooms.

(66) MATERIAL ACCOUNT.

A general ledger account recording value of material on hand in a manufacturing establishment available for use in the processes of production. It is customary to distribute material into separate accounts with the most important kinds used so that an efficient check may be maintained on the factory record.

(67) MERCHANDISE ACCOUNT.

An account intended to represent the trading transactions of a business and to exhibit gross profit made on same.

Merchandise account is debited with inventory at commencement of fiscal period, debited with purchases, credited with sales, and credited with inventory at close of fiscal period, the balance being transferred to profit and loss. It is thus an incomplete trading account. It is usually the case

however, that sales returns and allowances are debited to merchandise account, and purchase return and allowance credited thereto, which makes the account useless for any statistical purpose until the items are readjusted.

Merchandise account is no longer found in the more progressive commercial houses, separate sales and purchase accounts being substituted.

(68) NEGATIVE ACCOUNT.

An account which reduces the value of another account. Thus returns is a negative to sales, and treasury stock a negative to capital.

(69) NOMINAL ACCOUNT.

An impersonal or representative account.

An account in name only, representing profits, losses, or statistics.

(70) OPEN ACCOUNT.

A running account. An unsettled or unpaid account.

(71) ORGANIZATION ACCOUNT.

An account to which the preliminary costs of organization or promotion of a corporation are debited, this account being duly carried as a fictitious asset and gradually extinguished; the reason being that these expenditures represent outlays that have been carried for the benefit of the business in future years.

(71a) OVER AND SHORT ACCOUNT.

An adjustment account to which untraced differences found in balancing the cash are charged and credited.

(72) PERSONAL ACCOUNT.

An account which records the transactions of a business with the customers, creditors or debtors.

An individual account.

An account representing indebtedness of or liability to a person.

An account containing charges on which no profits are made, such as personal accounts for salaries, dividends, traveling salesmen, etc., as distinguished from accounts with customers or creditors.

(73) PLANT ACCOUNT.

A general ledger asset account in which is recorded the costs of buildings, machinery, wagons, etc. While in some businesses, plant account includes the various items mentioned, it is more usual to open separate accounts with each kind of asset.

(74) POSTAGE ACCOUNT.

A general ledger account in which is recorded expenditures in connection with the use of postage stamps.

(75) PRIVATE ACCOUNT.

A term used to signify the personal account of a partner as distinguished from his capital or investment account.

An account carried in a private ledger.





WORKING BALANCE SHEET.

| Accounts | Trial Balance Dr | Trial Balance Cr | Trading Account Hats Dr | Trading Account Hats Cr | Trading Account Gloves Dr | Trading Account Gloves Cr | Trading Account Hosiery Dr | Trading Account Hosiery Cr | Profit & Loss Dr | Profit & Loss Cr | Balance Sheet Dr | Balance Sheet Cr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 City Accounts Receivable | 1914 41 | | | | | | | | | | 1914 41 | |
| 4 Country Accounts Receivable | 2652 85 | | | | | | | | | | 2652 85 | |
| 1 Cash | 3245 75 | | | | | | | | | | 3245 75 | |
| 2 Bank | 3321 63 | | | | | | | | | | 3321 63 | |
| 5 Fixtures and Fittings | 5000 00 | | | | | | | | | | 5000 00 | |
| 12 Hats-Purchases and Freight | 1089 90 | | 1089 90 | | | | | | | | | |
| " Returns and Allowances | 64 50 | | 64 50 | | | | | | | | | |
| " Sales | | 2191 40 | | 2191 40 | | | | | | | | |
| " (Special) | | 600 | | 600 | | | | | | | | |
| " Inventory | | 401 75 | | 401 75 | | | | | | | 401 75 | |
| 13 Gloves-Purchases and Freight | 802 25 | | | | 802 25 | | | | | | | |
| " Returns and Allowances | 35 00 | | | | 35 00 | | | | | | | |
| " Sales | | 1516 75 | | | | 1516 75 | | | | | | |
| " Inventory | | 378 62 | | | | | | 378 62 | | | 378 62 | |
| 14 Hosiery-Purchases and Freight | 1329 50 | | | | | | 1329 50 | | | | | |
| " Returns and Allowances | 48 75 | | | | | | 48 75 | | | | | |
| " Sales | | 2463 25 | | | | | | 2463 25 | | | | |
| " Inventory | | 546 28 | | | | | | 546 28 | | | 546 28 | |
| 9 Expense | 825 00 | | | | | | | | 825 00 | | | |
| 10 " Inventory | | 47 60 | | | | | | | | 47 60 | 47 60 | |
| 11 Freight | 1185 75 | | | | | | | | 1185 75 | | | |
| 15 Wages | | | | | | | | | | | | |
| 6 Accounts Payable | | 1985 50 | | | | | | | | | | 1985 50 |
| 7 Bills Payable | | 1000 00 | | | | | | | | | | 1000 00 |
| 8 Capital | | 5000 00 | | | | | | | | | | 5000 00 |
| | 14163 90 | 14163 90 | 1154 40 | 2599 15 | 837 25 | 1516 75 | 1378 25 | 3009 53 | 2010 75 | 47 60 | 14465 50 | 10117 80 |
| 16 Profit - Hats | | | | 1444 75 | | | | | | 1444 75 | | |
| 17 " Gloves | | | | | | 1058 12 | | | | 1058 12 | | |
| 18 " Hosiery | | | | | | | | 1631 28 | | 1631 28 | | |
| 19 Net Profit | | | | | | | | | 2192 30 | | 2192 30 | |
| | | | 2599 15 | 2599 15 | 1895 37 | 1895 37 | 3009 53 | 3009 53 | 4148 05 | 4148 05 | 16657 80 | 16657 80 |

## (76) PROFIT AND LOSS ACCOUNT.

An account showing excess of revenue over expenditures, the balance of which will exhibit net income, this balance being thereafter transferred to surplus, capital, dividend, undistributed profit account, etc., according to the nature and requirements of the business and decision of the directors or proprietors.

Not long since the manufacturing and trading expenses were incorporated in the profit and loss account, and the innovation of a separate trading statement was vigorously opposed by a large number of accountants. This phase of accountancy is fully described under the heading of trading account. The approved practice now seems to be that the profit and loss account should be sedulously preserved from all items in any way appertaining to the manufacture, purchase, or sale of goods, the gross profit on sales being the starting point of the profit and loss account. The American Accountants' Manual goes so far as to say that the inclusion of manufacturing expense under any circumstances in the general profit and loss account is a technical error occasioned by an insufficient appreciation of the science of accounting and the statistical knowledge to be obtained thereby. The relation of the trading account to the profit and loss account is illustrated on the preceding Working Balance Sheet.

It is desirable, wherever possible to follow the trading account by a section of profit and loss showing separately all selling expenses of the business, carrying the gross profits from this section into a general profit and loss account, which includes running and administrative expense.

Special, or extraordinary profits, or losses, which have no connection with the regular business should be established in a fourth section, the object being to show the actual profits or losses made on the legitimate or staple business carried on.

Thus, if a business is sold on an exhibit of profits made by some exceptional transactions, the price being based on the profit made on those transactions, such a sale would be illegal, and the vendors would be liable to an action for recovery of the amount paid in purchase.

The current profit and loss account should contain nothing but current items, and items which relate to gains and losses made in a previous fiscal period should be otherwise disposed of—by transfer to surplus account, or any similar representative account. If not so transferred, then the profit and loss account of a given year should stand by itself until it can be closed out. This latter is by no means an uncommon arrangement and there is often seen on a well-ordered trial balance the items, "Profit and Loss, 1899," and "Profit and Loss, 1900," etc., etc.

An absurd idea of some book-keepers that the title "Profit and Loss" is wrong because profit comes before loss in the title, while in the account the losses appear in the left-hand column and the gains in the right, is referred to here only as a curiosity.





EXTRACT FROM STANDARD WORK.

"A good arrangement which is applicable to most businesses is to have the profit and loss account divided into four sections, the first section being the trading account, which brings out the gross profit on trading after charging all expenses connected with sales. The second section, which may be termed the ordinary business profit and loss account, will have on the credit side the gross profit carried from the first section, together with any income not directly connected with sales, such as rent of premises held by the firm, while on the debit will appear fixed charges, such as rent, taxes, salaries of office, and other expenses which are not directly connected with sales, and which do not vary with a rise or fall of the turnover. The balance on this section will then be carried to the third section, which may be termed the net profit account. On the credit side of this section appears the balance, if any, brought from the previous section, and such income as interest on investment, interest earned, and cash discounts, which depend on the capital in the concern. This section is debited with charges connected with capital, such as interest on loans. The fourth section, which may be termed the profit and loss appropriation account, is credited with the balance, if any, from the third section, together with the balance of unallocated profit from the previous year. On the debit side is shown how this profit has been allocated, whether in the form of interest on partners' capital, share of profit allocated to capital, or profit reserved for any special purpose. If the business is that of a public company, the dividend paid on the shares is debited to this account, together with any sum carried to the reserve fund, and the balance unappropriated is carried forward, and appears in the next profit and loss appropriation account.

"The form of the account given below should be carefully studied, but its utility can only be appreciated in practice. By the use of such divisions, and by comparing the accounts of one year with another, any looseness in the management of a business, or anything which might endanger its stability, can as a rule be at once detected, and measures taken to prevent further loss."

PROFIT AND LOSS ACCOUNT.

| Expenditure. | Income. |
|---|---|
| To cost of goods used (including carriage inwards, and after deducting purely trade discounts) .$ | By sales (after deducting purely trade discounts) .....$ |
| To Expenditure directly connected with sales, or which reduces the price realized for the goods, such as— | |
| Commission and salaries of travelers, and travelers' expenses ..... | |
| Wages of salesmen..... | |
| Wages of porters..... | |

| | | | |
|---|---|---|---|
| Carriage outwards of goods sold ..... | | | |
| Cash discount allowed on sales ..... | | | |
| To balance carried down, being gross profit ..... | | | |
| | $ | | $ |
| To fixed charges not directly connected with sales and not varying much with the turnover, such as— | | By balance brought down, being gross profit .....$ | |
| Rent, rates, taxes.....$ | | By income not directly connected with sales such as— | |
| Repairs and upkeep of offices. | | Rent of stores or premises belonging to the business let to tenants ..... | |
| Salaries of office staff and management ..... | | Revenue from royalties ..... | |
| Depreciation ..... | | | |
| To business losses, such as— | | | |
| Bad debts ..... | | | |
| Defalcations ..... | | | |
| To balance carried down, being profit on ordinary business..... | | | |
| | $ | | $ |
| To expenses connected with capital, such as— | | By balance brought down, being profit on ordinary business.....$ | |
| Interest on loans.....$ | | By income connected with capital, such as— | |
| To balance carried down, being net profit ..... | | Revenue from investments.. | |
| | | Interest earned ..... | |
| | | Cash discounts obtained, which depend upon the amount of capital in the business ..... | |
| | $ | | $ |
| To allocation of profit— | | By balance brought down, being net profit .....$ | |
| Interest on capital .....$ | | | |
| Profit allocated to capital..... | | | |
| Profit allocated to reserve.... | | | |
| To profit unappropriated, carried forward ..... | | | |
| | $ | | $ |

(77) PROMOTION ACCOUNT.

See organization account, paragraph 71.





(78) PURCHASE ACCOUNT.

A representative account showing the amount of material or merchandise purchased.

(79) PURCHASE LEDGER CONTROLLING ACCOUNT.

See controlling account, paragraph 14.

(80) RAW MATERIAL ACCOUNT.

See material account, paragraph 66.

(81) REAL ACCOUNT.

An account which represents the values of actual assets or the amount of actual liabilities, such as real estate, machinery, loans, mortgages.

(82) RECEIPTS AND PAYMENTS ACCOUNT.

A summarized account of actual cash receipts and expenditures during a given period, starting with the cash balance at date of commencement of account and ending with cash balance at close of period covered by the account.

(See income and expenditure account, paragraph 52.)

(83) RENT ACCOUNT.

A general ledger account in which are recorded the amounts paid or received on account of rent.

(84) REPRESENTATIVE ACCOUNT.

An account (preferably) whose function is to complete the double entry by representing the transactions described or recorded by personal accounts. Thus, sales account furnishes the double entry for customers' account and purchase account that for creditors' accounts. Real estate account represents the value of investments in real estate, etc.

(85) REVENUE ACCOUNT.

A term sometimes used to designate profit and loss account.

(86) REVENUE ACCOUNTS.

Those accounts, the balances of which are transferred at closing periods to the debit or credit of profit and loss account, as distinguished from capital accounts which relate exclusively to assets and liabilities belonging to the balance sheet.

(87) ROYALTY ACCOUNT.

An account representing amounts paid as royalty.

In books designed for use by manufacturers it is generally very important that they should be so planned that the proprietor can readily determine the totals of various items of cost or sources of profit, so as to ascertain their relative influence on the business done.

Among such items either of cost or profit, royalties paid or received constitute a factor of more or less importance, according to circumstances.

Most manufacturers have to pay to owners of patents for the privilege of making goods under such patents, paying at a certain rate or ratio for

articles as manufactured or as sold. The terms of the contracts vary, but the essential thing to a royalty is that it is a payment contemplated at a definite ratio to product—although it may be commuted so that a fixed amount is agreed upon in lieu of a varying sum.

Royalties may be divided into two classes, those paid, and hence entering into cost of product, and those received, and hence entering into profits of business.

ROYALTY INCOME ACCOUNT.

Let us take the less frequent account first. Competing manufacturers wish to use a patented article or process and agree to pay to its owner for the privilege. He uses the article himself, but derives an income or profit by allowing others also to use it. Such items should be credited as earned to royalty income account, and represented in the profit and loss account as an item of profit apart from the gross profit on sales.

The same remarks would apply of course when a manufacturer owning or controlling a patent was paid by others to abstain from using it, as is done by some of the associations.

Also to a case where a manufacturer controls patents which he does not use, but from which he receives the royalty income. In fact to any class of arrangements by which the manufacturer derives an income specially attributable to his controlling certain patents or similar privileges, which income bears a direct or estimated ratio to some basis of production.

ROYALTY EXPENSE ACCOUNT.

Frequently, however, the manufacturer is the source of the revenue rather than its recipient. In many cases the rights involved are controlled by some private person, who temporarily yields some or all of them in exchange for the payments agreed upon.

Such expense should be charged as earned to royalty expense account, and where departments are used to the royalty expense account of the proper department.

As to the proper disposal of the royalty expense accounts there seems to be room for difference of opinion. Some accountants contend that it should be included in the costs of manufacturing, but stated as a separate item, so that such cost would be composed of material, labor, manufacturing expense and royalty expense.

Other accountants seem inclined to treat it as an account negative to sales, always to be stated as a separate item, showing that total sales were so much, and after deducting royalties payable the net sales were so much.

Although the latter course is open to criticism it has one point of advantage over the other method, under which plan, if a large amount was paid for royalties, the average cost of output would be unwarrantedly increased although in fact labor, material and general manufacturing expenses might be less than in other periods.

It is not, generally speaking, a profit and loss account, because applicable only to a special part of the business, and besides under ordinary





circumstances is distinctly a manufacturing account.

The least objectionable course then will be to class royalty expense account as contra to sales account, considering the net sales to be only the amount remaining after royalties have been deducted.

It should be borne in mind in this connection that while royalties make it necessary to increase the selling price of goods, they do not, to any extent, increase the cost of manufacturing or selling them. Therefore, so that the item shall not disturb other comparisons which should be made, royalties should be kept distinct in books and statements from expenses of manufacture or of sale. To do this readily the items must be kept in royalty expense account as previously stated and exhibited on statements as negative sales so that net sales will then mean gross sales, minus returned goods and royalty expense.—F. Lines.

(88) SALES ACCOUNT.

A representative account in the general ledger recording amount of sales to customers and returns and allowances in connection with same and belonging to the credit side of the trading account.

Goods sold to other manufacturers at cost (as an accommodation) or to employes at a nominal profit should not be credited to the regular sales account, as statistical comparisons, and deductions therefrom, would thereby be seriously interfered with were the amounts at all large. Such sales should be carried in a separate account and not included in the trading statement of a business as though sold at the regular rate of profit.

(89) SALES LEDGER CONTROLLING ACCOUNT.

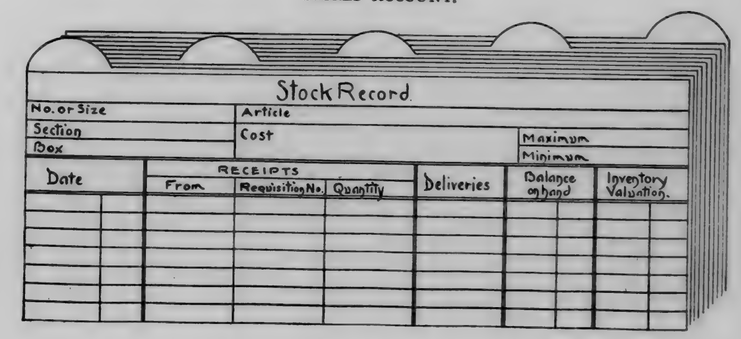
See controlling account, paragraph 14.

(90) SAMPLE ACCOUNT.

A special account usually carried with a salesman which records the cost of the samples furnished him for exhibition to customers. (See traveling salesmen's accounts.)

(91) STOCK ACCOUNT.

STORES ACCOUNT.



An account kept in the factory with goods and supplies received and distributed, and balances on hand.

(92) SUMMARY ACCOUNT.

An account dealing with totals and not with items. As the use of columnar cash books, journals, and auxiliary record books increases, the number of summary accounts tends to outnumber itemized impersonal accounts.

Controlling or adjustment accounts are good types of the summary account.

(93) SUNDRIES ACCOUNT.

An account into which are posted all charges to temporary customers who are not expected to purchase again.

The ordinary sundry account is a source of considerable trouble to the book-keeper. When the credits are posted opposite to the debits, the same annoyance in obtaining the correct balance of the account arises as in the case of bills receivable account when kept in a similar manner. Several expedients have therefore been devised to obviate this annoyance, one of which is illustrated below. The sundry debtors' account is

SUNDRY DEBTORS.

| 1901. | | Page | When Paid. | Dr. |
|---|---|---|---|---|
| Feb. 4. | J. A. Felton | 41 | Feb. 12 | 25 00 |
| Feb. 4. | T. O. Densmore | 41 | Feb. 12 | 25 00 |
| Feb. 4. | Geo. Winder | 41 | | 25 00 |
| Feb. 4. | Wm. Wintermute | 41 | | 25 00 |
| Feb. 4. | H. A. Merritt | 41 | Feb. 5 | 25 00 |
| 1901. | | | | Cr. |
| Feb. 4. | O. F. Ulman | Cash | 22 | 10 00 |
| Feb. 5. | H. A. Merritt | Cash | 22 | 25 00 |
| Feb. 9. | Tilman Jones | Cash | 22 | 5 00 |
| Feb. 10. | N. Miller | Disc. | 109 | 2 00 |
| Feb. 11. | Geo. Hanlon | Cash | 22 | 10 00 |

treated as though it were an ordinary account with one person, both credits and debits following in order of date. A special column is provided on the debit side, in which is entered the date of payment of the account, so that if it is desired to refer to J. A. Felton's account it will be seen that it was paid on February 12th, and the entry of credit will be found under that date.

Another method is to carry all sundry accounts in a self-indexing petty ledger.

"There are arguments against using a petty ledger in conjunction with a general ledger. Some claim that when you want to look for an account there should be only one place to find it, and that is in the general ledger. For instance, if the book-keeper is out and the proprietor wishes to look up an account, he will at once turn to this book and find it; and, not finding it there, he will use some uncomplimentary terms regarding his book-keeper and where he keeps his accounts. He will





forget, or perhaps he may be ignorant of the fact that there is a petty ledger in existence in the office. But this objection is a small one when the expediency of the book is explained, as anyone can readily see its advantages. Besides, in most every business of any magnitude nowadays there are used several ledgers and very infrequently only one as formerly.

"When no petty ledger is used the general ledgers will contain a great many accounts with perhaps only one or two entries. Now this is a waste of time and ledger space. The experienced book-keeper will readily notice a name which he will know will require little space in his book. Perhaps he will not make another entry to this account during the next two years, or perhaps never again. Now is it not better to put such accounts in a small book indexed alphabetically at the sides, rather than waste space with it in the general ledger? The mere loss of the page or leaf is nothing, but when you have, say, a hundred of just such accounts the trouble and annoyance of them is considerable. Every time a trial balance is taken or you go through the ledger you must wade through this useless timber.

"When an account is in the petty ledger it may be found in an instant, and when it is settled it can be canceled in red ink. At the end of the year, when the annual statement is made up, all accounts in the petty ledger can be reckoned in the assets of the business by deducting a certain percentage, and adding in the amount to the merchandise on hand.

"If the account thus treated proves to be more extended than at first supposed, it can easily be opened in the general ledger and reference made to former entries in the petty ledger.

"When an account is paid the amount is credited to merchandise in the cash book and reference is made to the place where the account is kept."

Still another method is to use a numerical or alphabetical check against the debits canceled by payment; i. e., by this method J. A. Felton's debit would be checked "A" and J. A. Felton's payment would also be checked "A," thus constituting quickereference from one entry to the other.

Still another method is to open a new sundries account each month, treating the account, and entering its balance on the trial balance, as though it were an individual account.

Another method is to open a new account as each page is filled up.

"The two sides of the sundries account can be footed when desirable in small pencil or red ink figures and the difference between the two sides placed between the two columns. This will show the net amount due from the sundry debtors on that page of the ledger and it can be verified at any time by looking down the 'when paid' column and taking off only those accounts not marked paid. New items can be posted in from time to time till near the bottom of the page, when another general account called Sundry Debtors No. 2 can be opened and treated the same as No. 1.

"When it is desirable to transfer the account the name and number can be transferred to another part of the book, with the unpaid balance, crediting it in red ink by the balance so transferred.

"As many of these general accounts can be used as needed. If another charge should occur to one of the names in the general account, credit that name by balance in red ink and bring the name down debit to bottom of the list on that page, if there is room; if not, carry it to another page; then post in next to it the additional charge. When an item is transferred write also in red ink in the 'when paid' column where it is carried to. If part of an item in the general account is paid, interline over the name the amount and give the general account credit for it, and instead of writing the date in the 'when paid' column make an interrogation mark in it with pencil that can be erased.

"When the balance of the item is paid erase the interrogation mark and write in the date of payment. The interrogation mark attracts the eye while hastily running down the column and calls attention to the fact that part of that item has been paid."

(94) SURPLUS ACCOUNT.

An account to which is transferred yearly the balance of the profit and loss account, thus providing that the profit and loss account shall only exhibit the current year's results.

(95) SUSPENSE ACCOUNT.

A summary account to which are transferred the balance of doubtful accounts from the customer's ledger, and in which they are retained nutil such time as they can be definitely disposed of. In this way they are not lost sight of, and can be estimated in the balance sheet at their proper value.

(96) TRADING ACCOUNT.

There is considerable diversity in the make-up of trading accounts constructed for different lines of business, although the principles are the same.

In the manufacturing business this statement is divided into two sections. The first section is known as the manufacturing account, covering all expenditures in relation to cost of production. The total cost is then transferred to the debit of the second section of the trading account. This section is credited with sales and new inventory.

In wholesale business no division of trading account is necessary, while in general or department stores a separate trading account is carried with each department.

(97) TREASURER'S ACCOUNT.

In many corporations and institutions an account is carried on the main books with the treasurer instead of with cash and bank. He is debited with all money received and credited with all expenditures. In his department he keeps cash and book accounts for his own information.

(98) TREASURY STOCK ACCOUNT.

(A) A corporation account recording the amount of capital stock unscribed.





The question as to whether it is justifiable to include treasury stock on the balance sheet as an asset is, we think, of fictitious importance, for the reason that the amount of treasury stock on the asset side is always offset by an equal amount of stock in the captital stock account on the liability side. As previously indicated in this Encyclopedia, we prefer method adopted by foreign corporations, of placing the nominal capital in an inner column and including only paid up capital stock in the actual liability column.

(B) Stock donated by subscribers for the purpose of sale in order to raise working capital.

(C) Stock, the possession of which has been acquired by purchase by a corporation from its original owners.

(99) UNDIVIDED PROFITS ACCOUNT.

An account representing the amount of profits undistributed by way of dividend.

A surplus account.

(100) VENTURE ACCOUNT.

See adventure account, paragraph 15.

(101) VESSEL ACCOUNT.

VOYAGE ACCOUNT.

An account carried with each vessel for each voyage to which all expenditures in connection with the voyage are charged and to which all receipts from freight and passenger traffic are credited. The balance of this account then shows the profit on the trip.

(102) WAGES ACCOUNT.

A general ledger account to which is debited the amount of wages paid.

(103) WORK IN PROCESS ACCOUNT.

A factory account recording the value of work on uncompleted orders and consisting of perpetual inventory of material and supplies issued from stores room, wages on account of labor performed up to date, and percentage of overhead or shop expense.

A good method of providing for this perpetual inventory is through a memorandum "manufacturing account," to be kept by the cost clerk, or whoever it may be, whose duty it is to attend to the factory records.

If daily job cards are issued to the workmen, a recapitulation may be made from them with an adding machine, and the total debited to this manufacturing account. A recapitulation is also made of the value of material issued from the requisitions turned in by the store-keeper, and the total of this recapitulation debited to manufacturing account, as the shop orders are received on account of completed work, the value of material used and time consumed on them will be credited to manufacturing account.

This account should be ruled on the debit with two columns—one for material and one for labor, so that they may always available; and on the

credit side with two columns, the second side providing for a record of unusuer a material returned to the stockroom.

When reporting inventory of uncompleted work to the main office, it is only necessary to add the proper percentage of factory expense to the total labor, and the balance of this account then exhibits the required amount of the inventory.

### (104) ACCOUNT CURRENT.

An account which runs indefinitely as compared with one regularly balanced. Interest is usually charged at periodical intervals, and this subject will be considered under the heading of averaging accounts.

### (105) ACCOUNTANT.

Some definitions of the duties and status of the public accountant,, certified, chartered, incorporated, or otherwise, and the kinds of work he is expected to do may be described and quoted as follows:

"The public accountant is the consulting physician of finance and commerce. He understands the anatomy and physiology of business and the rules of health of corporations, partnerships and individual enterprises. He diagnoses abnormal conditions, and suggests approved remedies. His study and interest is the soundness of the world of affairs."

The kinds of work he is expected to do are thus described:

"Auditing and reporting on the accounts of companies, corporations, public bodies, societies, institutions, private firms and individuals.

"Drawing up balance sheets, states of affairs, schemes of division, and other statements of accounts.

"Investigating books and accounts with the view of certifying as to profits, accounting for losses, or tracing defalcations.

"Reporting on and unraveling accounts under orders from the courts.

"Designing systems of book-keeping and keeping accounts, and advising thereon.

"Anyone proposing to become an accountant should pre-eminently possess the mathematical mind. He must have accurate perception, strong power of concentration, and clear and logical reasoning faculties. So endowed, he may be considered a fit subject for the training offered in the office of a practicing accountant. In the course of this training he should be taught orderly and methodical habits, and specially the habit of verifying for himself every figure or fact of which he makes use, thus laying the foundation of that character for accuracy and reliability without which no one need expect to succeed as an accountant. In the course of service he should acquire familiarity with the details of professional work, and the recognized societies lay down rules and prescribe examinations, as hereafter explained, for further guidance in his professional education. But withal, he will still want something of the equipment of the 'perfect accountant.' He must be possessed of practical business sagacity, a demeanor such as inspires the confidence of his clients, and, it need scarcely be said, a character of the strictest rectitude. There are few professions





where a keen power of discrimination between the straight and the crooked is more frequently required, and where any laxity in following sound principles has more far-reaching consequences.

"The professional accountant, as now recognized, is of quite recent origin. He is not a book-keeper, but his duty consists in the examination of the work of book-keepers with a view to establishing the accuracy of their work. The official auditor of a corporation should not be confused with the professional accountant. Most large enterprises employ accountants whom they term auditors, but such accountants have generally had very little of that special experience which qualifies the professional accountant to examine the accounts of any business, no matter what system may be employed.

"The public accountant is the consulting physician of finance and commerce. He understands the anatomy and physiology of business and the rules of health of corporations, partnerships and individual enterprises. He diagnoses abnormal conditions, and suggests approved remedies. His study and interest is the soundness of the world of affairs."

### (106) ACCOUNTANTS' ASSOCIATIONS.

The American Association of Public Accountants in 1908 consists of the following state branches:

California Society of Certified Public Accountants.
Colorado Society of Public Accountants, The.
Georgia State Association of Public Accountants.
Illinois Society of Certified Public Accountants.
Maryland Association of Certified Public Accountants.
Massachusetts, Incorporated Public Accountants of.
Michigan Association of Certified Public Accountants.
Minnesota Society of Public Accountants.
Missouri Society of Public Accountants.
New Jersey, Society of Certified Public Accountants of the State of.
New York Society of Certified Public Accountants, The.
Ohio State Society of Public Accountants, The.
Pennsylvania Institute of Certified Public Accountants.
Tennessee Society of Public Accountants.
Washington Society of Certified Public Accountants.

The Institute of Chartered Accountants in England and Wales in 1908 reported a membership as follows:

| | |
|---|---|
| Fellows | 871 |
| Associates in practice | 1,628 |
| Associates not in practice | 992 |
| Members not in England or Wales | 255 |
| Total | 3,746 |

The latest report of the Incorporated Accountants of London, England, quotes the membership as follows:

| | |
|---|---|
| Fellows | 851 |
| Associates | 1,343 |
| Total | 2,194 |

From the latest information published of the Chartered Accountants of Scotland, we find the membership to be as follows:

| | |
|---|---|
| The Society of Accountants in Edinburgh | 434 |
| The Institute of Accountants in Glasgow | 506 |
| The Society of Accountants in Aberdeen | 50 |
| Total | 990 |

Branches of both the Institute of Chartered Accountants of England and Wales, and of the Society of Accountants and Auditors of London, England, have been organized in the principal British colonies.

In the United States a large number of associations, consisting of public accountants, corporation auditors and book-keepers, has been organized, of which the following are the more important:

Incorporated Accountants of Maryland.
Incorporated Accountants of Illinois.
Incorporated Accountants of Michigan.
Incorporated Accountants of New York.
Incorporated Accountants of Pennsylvania.
International Accountants' Society of Massachusetts.
New York Society of Accountants and Book-keepers.
Illinois Institute of Accountants.
Chicago Association of Accountants and Book-keepers.
Milwaukee Association of Accountants and Book-keepers.
Incorporated Accountants of Indiana.
Incorporated Accountants of Ohio.
Cincinnati Chapter.
Cleveland Chapter.
St. Louis Society of Book-keepers and Accountants.

### THE UNIVERSITY OF ILLINOIS REGULATIONS FOR THE CONDUCT OF EXAMINATIONS FOR CERTIFIED PUBLIC ACCOUNTANTS.

1. The supervision of all matters under the law shall be in the hands of a committee under the immediate supervision of the president of the university, consisting of the head of the department of economics, the professor of industry and transportation, and the registrar.

2. This committee shall receive all applications for examinations and shall issue to approved applicants certificates of admission to the examinations, and no candidate shall be examined who does not present to the





board of examiners at the time and place of examination, as advertised, such certificate of admission, signed by the registrar.

3. This committee shall appoint the times and places of examination and shall advertise the same according to the provisions of the law.

4. This committee shall receive from the board of examiners the questions to be used at the examinations, and shall print and distribute these examination questions to the examining board in time for conducting the examinations as advertised.

5. This committee shall receive the reports of the examinations from the board of examiners, and shall certify to the president the successful candidates.

6. This committee shall receive and certify to the president all statements of expenses and fees of the board of examiners.

7. This committee shall also examine the papers of applicants under Sec. 3 of the law, and shall certify to the president the names of those who are eligible under this section to receive the degree of certified public accountant.

Board of Examiners. 1. The board of examiners for the examination of candidates for the degree of certified public accountant shall consist, according to law, of three members, at least two of whom shall be skilled in the practice of accounting and actively engaged therein in the state of Illinois.

2. The members of this board of examiners shall be nominated by the president of the university and approved by the board of trustees.

3. Vacancies on the board, due to any cause, shall be filled for the remainder of the term of office, at the first meeting of the board of trustees which occurs after the occurrence of such vacancy. Appointments to expiring terms shall also be on nomination of the president for approval by the board of trustees.

4. The term of office of these examiners shall be three years, except for the members first appointed. Of these, one shall be appointed for three years, one for two years, and the third for one year. At the annual meeting of the board of trustees of the university in June, the place of the retiring member shall be filled by action of the board of trustees.

5. After July 1, 1904, no one shall be appointed a member of this board, who is not authorized under the law to practice in the state of Illinois as a certified public accountant.

6. Each member of the board of examiners who shall be engaged in the duty of conducting examinations at the time and place appointed by the university authorities as provided herein, shall send to the university committee in charge a statement of the time actually spent in the discharge of his duties as a member of this board in conducting said examinations, together with a statement of actual traveling expenses incurred in performing said duty. This statement shall be certified to the president by

the committee in charge at the university and no fees or bills for expenses of the members of this board of examiners shall be paid, excepting on approval of the president after this certification.

Applications. 1. Applicants for the degree of C. P. A. on the basis of previous practice, under Sec. 3, of the law, shall file their applications with the university committee on accountancy, together with a sworn statement setting forth their age, legal residence, the length of time during which they had practiced, the place where such practice was had, and the time, place and scope of examinations, if any, passed in accountancy.

2. Applicants for examinations shall file their applications, and all papers necessary to show their qualifications for admission to the examinations, with the university committee on accountancy, as provided herein. Applicants must submit certificates of graduation from a four year high school, or evidence of having had an equivalent education, together with certificates of age and good character. They shall also submit the names of three suitable references, at least two of whom must be residents of the state of Illinois.

3. Applicants for examination or for the degree under Sec. 3, of the law, shall send a fee of $25, payable to the university, in accordance with Sec. 4, of the act.

Examinations. 1. Examinations shall be held by the board of examiners at the times and places determined by the university committee in charge.

2. The time and place of holding these examinations shall be advertised according to the law for not less than three consecutive days in one daily newspaper published in each of the places where the examinations are to be held, not less than thirty days prior to the date of each examination.

3. The examinations shall take place as often as may be deemed necessary in the judgment of the university committee, but not less frequently than once each year. The annual examination shall be held on the first Monday in May.

4. The examinations shall be in the theory of accounting, the practice of accounting, auditing, and commercial law as affecting accountancy.

5. Each applicant for examination must present to the board of examiners, before the examination begins, a certificate of admission to the examination, issued by the university committee on accountancy. These certificates shall be returned by the board of examiners to the chairman of the university committee.

6. The period allotted to the examination in each subject shall be determined beforehand by the university committee, on the advice of the board of examiners, and shall be printed on the examination papers.

7. Examinations shall be written in books supplied by the university





to the board of examiners as provided for by action of the board of trustees in December, 1901.

8. The examination books shall be marked in plain figures, on the scale of 100, by the board of examiners, and, together with the certified statement of the board of examiners of the grades of each candidate in each subject in which he is examined, shall be forwarded to the chairman of the university committee. This certified statement must be signed by at least two of the board of examiners.

9. The list of successful applicants, as certified by the board of examiners, shall be certified to the president of the university by the university committee in charge, unless, in the opinion of that committee, there exists some question concerning the eligibility or the honesty of the examination on the part of the candidate. In that case, the matter shall be referred back to the board of examiners, if it is a question of honesty in examination. If they certify to the honesty of the examination, the name of the candidate shall be certified by the committee to the president.

10. In order to entitle any applicant to a recommendation for the degree, he must secure a grade of at least 75 per cent in each subject on which he is examined.

11. The applications and credentials of applicants for the degree of C. P. A. on the basis of previous experience, under Sec. 3, of the law, shall be examined by the board of examiners. If the credentials furnished by such an applicant are sufficient, in the judgment of the board of examiners, they shall certify him to the university committee for the degree of C. P. A. as in the case of applicants who seek the degree by examination. Diplomas shall be issued in the same way and under the same conditions as for applicants by examination.

Records. 1. Candidates who meet all the requirements for eligibility and are duly certified as above required, shall receive a diploma conferring upon them the degree of certified public accountant (C. P. A.). This diploma shall be issued in the name of the university and shall be signed by the president of the university and the secretary of the board of trustees.

2. The registrar shall open a set of books in which he shall keep the records of all successful candidates for the degree, which shall set forth the time and place of the examination at which each candidate met the requirements for the degree, the grades obtained on the examinations, the number of the diloma issued, and the date of its issue.

3. The fees from applicants shall be turned over to the business manager of the university who shall keep a separate account of all receipts and expenditures under the law.

### TYPICAL C. P. A. EXAMINATION QUESTIONS.

Theory of Accounts.—(Time allowed, three hours.) 1. At the close of a fiscal period, how should consigned goods appear on the books:

(a) Of the consignor,

(b) Of the consignee?

2. On an independent appraisement being made of the physical assets of a manufacturing corporation, the appraisement shows appreciations and depreciations, as compared with the book values, as follows:

| | |
|---|---|
| Real Estate—Appreciation | $20,000 |
| Buildings—Depreciation | 3,000 |
| Machinery—Depreciation | 2,500 |
| Tools—Depreciation | 3,000 |

The directors desire to bring the book values into agreement with the appraisement. Draft entries to show how, in your opinion, this should be done.

3. A wholesale house ha s on its books 200 individual accounts with creditors, 500 with city customers, and 1,500 with country customers, besides about 75 impersonal, or representative, accounts. Owing to the methods of book-keeping in force, it is necessary, in order to ascertain the amount of accounts receivable or payable, to take off a complete list of the accounts in question. You are called upon to advise as to how this difficulty can be overcome, and also as to whether the book-keeping work on the accounts payable cannot be reduced, having regard to the fact that the firm discounts all its bills.

Embody your suggestions in a brief report.

4. In order to facilitate the preparation of monthly profit and loss statements by a corporation, how would you recommend that the following items be treated on its books from month to month:

(a) Interest Payable,
(b) Insurance,
(c) Taxes,
(d) Depreciation?

5. Outline any system of cost accounts with which you are acquainted. Classify the accounts in their sequential order.

6. Suggest a plan for recording and posting, with the least possible loss of time, the remittances received from customers by a concern whose ledger is in several divisions, with a book-keeper to each division.

7. Define:

(a) Depreciation,
(b) Good Will.
(c) Reserve Fund.

8. State what, in your judgment, are the principal defects of the prevailing methods of municipal accounting. What is your conception of the information that should be given in the periodic statements of a municipality? In what way would this materially differ from and be an improvement upon the information now commonly furnished by such statements?

Practical Accounting.—(Time allowed, four hours.) 1. A and B, who had hitherto been in business separately, decided to enter into partnership on July 1, 1905. The balance sheets of A and B were on that date as follows:





A. LIABILITIES.

| | | |
|---|---|---|
| Accounts Payable | $1,000 | |
| Capital Account | 5,000 | $6,000 |
| **ASSETS.** | | |
| Furniture | $ 750 | |
| Accounts Receivable (face value) | 2,500 | |
| Merchandise | 2,550 | |
| Cash | 200 | $6,000 |

B. LIABILITIES.

| | | |
|---|---|---|
| Accounts Payable | $1,500 | |
| Capital Account | 3,000 | $4,500 |
| **ASSETS.** | | |
| Furniture | $ 600 | |
| Accounts Receivable (face value) | 1,500 | |
| Merchandise | 2,000 | |
| Cash | 400 | $4,500 |

It was agreed that A and B should make over their respective accounts receivable at $200 and $150 less than the face value shown in the balance sheets, these amounts to be charged against their capital accounts and carried on the partnership books as a reserve for bad and doubtful accounts. Of B's furniture, only $250 was to be taken over by the partnership. With the above exceptions the assets and liabilities of the parties were to be taken over by the partnership at the balance sheet figures, except that B was to invest in the partnership, in cash, a sum which, after making the adjustments above referred to, would make his capital account the same as that of A.

Draw the balance sheet of the A and B partnership on July 1, 1905, giving effect to the foregoing provisions.

2. How would you change a set of books from single entry to double entry?

3. What do you understand by the term "Perpetual Inventory?" Give an example. State what you consider the advantage (or disadvantage) of its use; and might there be circumstances in which its adoption would be impracticable? and if so, give an instance.

4. Two parties, A and B, have been in business for the three years ending December 31, 1904, on which date they agree to dissolve partnership. A takes over the business, paying B $7,500 for his share of the good will. A has drawn out each year $2,000 and B $3,000. A's capital at start was $10,000, and B's $12,500, and the profits of each year have been $3,500, $4,200 and $4,600 respectively. There was no deed of partnership nor any arrangement as to interest on capital. Draft accounts showing A's capital on taking over the business, and the amount B will receive on retiring.

5. X and Y enter into partnership, X's capital being $20,000, and Y's $15,000. Capital is to bear interest at 10 per cent per annum; profits are to be divided equally between the parties. The profits for the first two years (after charging interest on capital) were:

| | |
|---|---|
| 1st year | $6,000 |
| 2nd year | 7,500 |

and the drawings of the partners (in excess of salaries) were:

| | 1st year | 2nd year |
|---|---|---|
| X | $1,500 | $1,750 |
| Y | 1,200 | 1,500 |

At the end of the 2nd year, Z was admitted to partnership, and put into the business the same amount of capital as Y had in the business at that time, and on the same conditions as to interest and division of profits. The profits of the business for the third year were $12,000, and the partners' drawings in excess of salary were:

| | |
|---|---|
| X | $1,750 |
| Y | 1,600 |
| Z | 1,500 |

Construct the capital accounts of the partners for each of the three years, showing the balance on each at the end of the third year.

6. X receives from his customer, Y, a note in settlement of his account. This note X discounts at his bank. Draft entries.

7. Before making the charges referred to below, the profit and loss account of a corporation for the year shows a credit balance of $60,000. The accounts receivable are $40,700, and the plant and the machinery account is $55,000. The 6 per cent preferred stock is $50,000 and the common stock $150,000. It is decided (a) to provide out of the above named profit and loss balance 7½ per cent depreciation on plant and machinery; (b) to write off as uncollectible $1,500 of the accounts receivable and to make a reserve of 2 per cent on the remainder of the accounts receivable to provide for possible losses thereon; (c) to provide for the preferred stock dividend for the year; (d) to provide for a bonus of $7,500 to the employes; (e) to provide for a dividend on the common stock of 15 per cent for the year; and (f) to carry the balance then remaining on profit and loss account to undivided profits account.

Draft entries to comply with the above provisions.

8. A, B and C were equal partners.

In the event of the death of either of them, during the existence of the partnership, the two survivors were, in terms of the deed of partnership, to have the prior right of purchase of the deceased partner's interest in the business, as at the date of his death—the computation of the value of said interest to be based on two years' purchase price of the average profits of the three years preceding the date of his death.

The accounts were kept by single-entry, and were made up half-yearly, to June 30th and December 31st; and the statement of affairs was signed by each of the partners, as acknowledging their agreement as to





the profits shown thereby to have been earned during each of these fiscal periods, respectively.

The profits of the six half-years to June 30th, 1905, were, as acknowledged by the three partners, as follows:—

| | |
|---|---|
| To December 31, 1903 | $14,200.50 |
| To June 30, 1903 | 16,089.50 |
| To December 31, 1903 | 14,200.50 |
| To June 30, 1904 | 18,006.50 |
| To December 31, 1904 | 13,453.50 |
| To June 30, 1905 | 20,500.00 |

A died on October 31, 1905; and it is agreed that his partnership ceased as at that date, and that the partnership then had as assets:

| | |
|---|---|
| Good Book Debts | $41,995.00 |
| Furniture and Fixtures, worth | 3,600.00 |
| Cash in Bank and Office | 9,450.00 |
| And liabilities, amounting, in all, to | 3,250.00 |

A's capital account showed at the same time $20,000 to his credit, and his personal account a debit of $2,165, (the latter forming part of the asset of $41,995, for Good Book Debts).

The profits for the half-year during which A died were ascertained at the next usual fiscal term—viz.: December 31, 1905, when they were shown by B and C to be $26,380 and the administrator of A's estate is satisfied as to its correctness.

Make statement showing amount A's estate is entitled to receive from B and C, without reckoning any interest on the balances of either of the partners' capital or personal accounts.

Auditing. (Time allowed, three hours.)

1. The entries on the credit side of a cash book which you are auditing include payments by cash and payments by check, it not being the custom of the proprietor to deposit all receipts in bank. How would you proceed to verify (a) the bank account; (b) the balance as shown by the cash book?

2. At the close of his financial year, a contractor has a number of uncompleted contracts in hand. On his balance sheet appears, as an asset, the item "Work in progress $100,000," and in his profit and loss account appears the credit item "Profit on contracts $20,000." How would you, as auditor, verify these figures?

3. How would you audit a set of single entry books?

4. A purchases B's business as a going concern, paying part of the purchase price in cash on the date of the transfer and giving interest-bearing notes for the balance. How would you, as auditor, expect to find the interest on the notes treated in A's books?

5. (a) How would you, as auditor, satisfy yourself as to the value of (1) accounts receivable, (2) bills receivable?

(b) How should "bills receivable discounted" be shown on a balance sheet?

6. Outline a plan for the audit of any mercantile business with which you are acquainted.

7. You are instructed to make a partial audit of a lighting company in connection with a proposed issue of bonds. State the points to which you would consider it necessary to give particular attention.

8. A corporation was duly authorized to do business in this state, capitalized at $100,000, which amount was fully subscribed for before incorporating. Only 50 per cent of that amount was called in—viz., $50,000; and, after completing the first year's operations, it was decided that it would be unnecessary to call in the balance of the amount subscribed for.

At a general meeting of the members of the corporation, a resolution was passed, unanimously, and recorded in the minutes, reducing the capital to $50,000, and authorizing and directing the book-keeper to clear off the balance of $50,000 standing at the debit of subscription account.

As auditor, would you consider that those entries called for comment? If so, state fully for what reason.

Commercial Law. (Time allowed, two and one-half hours.)

1. With regard to a corporation; what is necessary to be done:
(a) To form and incorporate,
(b) To increase capital,
(c) To decrease capital,
(d) To disincorporate voluntarily.

What rights and powers of a corporation would be sustained by common law, even if they were not expressly stipulated in its charter?

2. What benefits, or disadvantages, may obtain as between common partnership and holding stock in a corporation? In what respect does the individual partner's, or stockholder's, liability to creditors differ? Are there any circumstances under which one of the partners in an unincorporated firm could limit his liability? If so, state how.

3. Describe: Common stock,
Preferred stock,
Cumulative preference stock.

4. Describe: Personal property,
Real property.

What satisfaction would you, as auditor, require, to prove validity of transfer of (a) personal, (b) real, property?

Under which of these classifications would you place the capital stock of a corporation that exists only for the purpose of selling its own real estate; and why would you so classify it?

5. Describe: Interest,
Compound interest,
Usury.

What is the legal rate of interest in this state? Can a higher rate be enforced, if stipulated by previous contract, and to what extent, if so?





If a note were made in this state, payable in Idaho, and assuming the legal rate of interest to be different in the other state, which rate could be enforced if it were necessary to sue for payment of interest? If a similar note was drawn without specifying where payment was to be made, whether would the Washington or the Idaho law govern?

If A, who obtains a loan from B, were to agree, by definite and specific contract, in writing, to pay therefor a rate of interest known by both of them to be usurious, what would be the result of an action at law if A were, afterwards, to refuse to comply with the terms of that contract?

6. Define: (a) Mortgage,
(b) Trust deed,
(c) Equity of redemption,
(d) Warranty deed,
(e) Quit claim,
(f) Abstract of title.

Why is a trust deed frequently preferred to a mortgage?

7. Describe: Insolvency,
Bankruptcy—voluntary,
Bankruptcy—involuntary.

If A makes an assignment to B for the benefit of his creditors, of all his possessions, is he, ipso facto, absolved of further liability if the proceeds thereof are insufficient to pay the whole of his indebtedness? If not, what further steps must he take?

State three reasons for which the court might refuse to grant discharge in bankruptcy.

8. (a) Define: Agreement,
Contract,
Bond.

(b) Name a variety of municipal bonds; their rank in priority and against what treasury revenues as claims; describe city's liability, condition liability and non-liability (if ever).

(c) Define sinking fund and set out purposes thereof.

## (107) ACCOUNTANCY.—(ERRORS IN PRINCIPLE.) ....

Secret Reserves. It is wrong to establish secret reserves for the purpose of reducing dividends, especially in the case of a corporation whose stock is sold on the public market. The seller of such stock is practically defrauded out of a part of the price he should obtain, as the market value depends on the profits earned and distributed. It would appear that there should be some legal remedy in cases of this kind.

Sales to Branches. It is wrong to charge branches at selling price, as by this process the main office profits are incorrectly inflated.

Sales to branches should not be credited to the main office sales account at cost, as this renders any statistics, or percentages, in connection with distributing expense, etc., entirely valueless.

Sales to branches should be credited to a special account. A good plan to follow is to open purchase and sales accounts on main store books for each branch. On the purchase account charge them with goods at cost in one column, crediting main store purchase account, and provide another column in which to charge them with the same goods at selling price. The difference between the purchase account at the selling price and the sales account should equal amount of goods on hand at the branch at selling price, and should agree with the branch reports; while the difference between the branch purchase account at cost, less inventory and sales, will show gross profit.

INSTALMENT ACCOUNTS. These should not be credited to sales at full price, as the subsequent expense of collection should be taken into consideration. When the first year is given the whole of the profit on the sale without consideration of future collection expense, it necessitates an erroneous showing of profits.

CONSIGNMENT SALES. These should not be entered in the ordinary sales book, but in a seperate record, from which they may be transferred as actual sales are accomplished.

FREIGHT AND CARTAGE. In a manufacturing business the accountant should be careful to discriminate between in-freight and cartage and out-freight and cartage, the former being a part of cost of production and the latter expense of distribution.

SUSPENSE ACCOUNT. It is a very common practice for business men to transfer bad and doubtful debts to a suspense account, this account being included in the balance sheet as an asset, so that the transfer makes no difference whatever in the business showing. The proper plan is to establish a reserve against bad debts, which will appear on the liability side of the balance sheet, the assets being correspondingly reduced.

## (108) ACCOUNTANCY, ETHICS OF.

It is generally considered by professional accountants to be opposed to the best traditions of propriety for one professional man to canvass the client of another for business. One of the reasons for this point of etiquette among accountants is that information of the most delicate and momentous nature is frequently committed in confidence by the client to the accountant, the accountant standing in relation to his client as an advisor and confidant, and it may be readily recognized that under these circumstances it is to the interest of the client to restrict such confidences as much as possible to one reliable person.

Advertising is also a violation of the accountant's code of ethics, but there appears to be a distinction drawn between direct advertising and indirect advertising, in the way of an accountant keeping his name continually before the public as treasurer or auditor of philanthropical, or charitable, or other public institutions in connection with which he expects to be brought into contact with possible clients. This portion of the code





of ethics is not much respected in the United States, where professional men have reduced copies of their photographs, and quotations of their terms, and sometimes even a reduced copy of their certificates of membership in the society to which they may belong, on the back of their business cards. As a rule, it is safe to assume that the accountant who advertises his business and terms in this way, depends rather upon advertising than upon the necessary qualifications in order to obtain clients.

Touting is also very strongly condemned by English accountants, and we hear of chartered accountants in New York who would not send a man across the street to obtain business, if the business could be secured in no other way. This extreme delicacy of feeling does not appear to be suitable to the conditions of the United States. If accountants in this country desire to prosper, it is undoubtedly necessary to keep up a persistent campaign so that the business public may be educated to the necessity of efficient methods for keeping a record of their accounts, the accuracy of which should be unquestioned, and this can only be accomplished by a certain amount of touting and advertising.

## (109) ACCOUNTANTS' ACCOUNTS.

Owing to the peculiarities of their business, it is very desirable that accountants should keep suitable books of accounts, particularly so as it is a part of their occupation to recommend to others proper and efficient methods of accounting. Example is supposed to be better than precept, but we are afraid that if many accountants' clients could have the opportunity to examine the accounting methods in use by their professional mentors, they would be surprised and disappointed.

Accountants obtain business by contract and by time, and it is very necessary for them to keep an accurate record of the value of time employed by themselves and their assistants in the work performed, as this time represents the same to them as the cost of production in a manufactory. By contract we mean that the work is done for a certain prescribed fee, whether per annum or for the particular audit or examination. The accountant's day book is therefore frequently represented by a specially ruled diary, which contains each day's appointments, and against these appointments are entered each day the time consumed. Money columns are also provided in the diary for the extension of the value of the time, and a folio column is provided and the various amounts charged up to the client's account. Where business is large, it is customary to have a specially ruled book or sheet, one column being devoted to each client's account. The amounts are then entered each day on this sheet, or sheets, from the diary, the totals only of the columns being charged to the client's account at the end of the month. If this method is followed for contract work as well as time work, the advantage will be that the contract accounts will always exhibit the loss or gross profit made. Where losses are incurred, the causes can be investigated and precaution taken

to prevent a recurrence. Such losses are usually the fault of a defective appreciation of the conditions of the work to be done.

## (110) ACCOUNTANTS' INVESTIGATIONS.

Among the principal duties of the expert accountant is the examination of books of account for the purpose of satisfying clients as to the profits which have been made in a business they desire to purchase, and the genuineness of assets and liabilities represented in the book accounts. It is usual also to make such an investigation on the promotion of a company formed to take over and develop an established business, certifying to the statements published in the prospectus of the promoters as to the profits earned and capital employed. The following rules to be followed in such investigations are very complete, and will form a very valuable guide to those who undertake such investigations. They are quoted from the Incorporated Accountants' Journal.

"In commencing an investigation of this nature it is reasonable to expect that a fairly complete set of books should be in existence, as a business that cannot afford good book-keeping is not worth floating as a company. Should the case be otherwise, it is right to insist that the accountant be allowed—indeed, it is essential that he should—make up a complete set of accounts before certifying. It is true it may not be necessary to re-post everything, but the examiner must first spend time in learning from the book-keeper or proprietor the exact methods adopted; if he thoroughly grasps these, and keeps in front of him a complete list of books in use, he should be able to take his own short cuts to ascertain ressults and to insure against being misled."

The ground-work of every business is "Cash"—and further, it is a commodity that leaves traces of its career, the proprietor will say "in profit"—and that is just the point to test.

If the statement is that "everything goes in the ledgers," a simple method would be to dissect them, and thus, at one stroke, get a check on purchases, sales, discounts, and bad debts—but the schedules at start and finish must be carefully scrutinized, also the purchases and sales just prior to and after the beginning and ending of the period to be reviewed. One may find sales suddenly increase or purchases lighten towards the end. The sales should be tested by noting whether paid for at due date; the record of returns from sales for the succeeding year should also be examined; or it may be that an examination of the purchase book for the subsequent period may show an increase; if so, it would be necessary to call for the production of all invoices for the two or three months after the period under review, so that any indication of goods having been omitted may be cleared up. An instance came under the notice of the writer, in a company of which he was not the auditor, where on the last day of the financial year an entry for goods to the extent of some $50,000 or more appeared in the day book with the significant notes against a certain portion "for delivery in





January," other portions in February, March, etc. As a matter of fact, they were never delivered, but a credit appeared for the same amount two years after. Although not in relation to an investigation for a company flotation, it aptly represents what should be disallowed without the long subsequent credit entry.

Stock at commencement and end should be inquired into. If taken on the same basis of valuation on each occasion? If stated to be at market value, the state of the market might be noted, a sudden rise, and consequent appreciation firmly resisted; "cost" (or for damaged goods "value") should be the watchword. Before leaving what one may call the trading account or search for gross profit, a comparison of the amount and the proportion the stock may bear to the turnover can be usefully made; the rate per cent of gross profit should also be worked out. If normal, it is a satisfactory indication that there has not been much cooking. The proportion of stock to turnover helps to indicate the correctness of it. If the stock be abnormally large it may result from fraudulent additions, or by reason of the prospective vendor carrying a large proportion of "dead," or non-active stock which it is sought to sell to the proposed company at cost, truly hanging a mill-stone round the neck of the innocent infant."

A word as to "work in progress" may well be put in here: It is perhaps the most difficult part to test if proper books have not been kept. Where manufacturing is carried on, the cost record is an essential, and should be called for: The percentage added for standing charges throughout should be ascertained, and no greater percentage allowed on the cost of works in progress at the end of the period, whilst it should be seen that no unusual amount of profit from any uncompleted contract at the commencement has been brought in to raise the average.

The accountant having thus dealt with and satisfied himself as to gross profit, there remain questions of expense to be looked carefully into. Every class of business has its own ratio of expense, and it is difficult to lay down any close rule, but if the cash has been dealt with and tested, what has not been exhausted in the personal trading accounts will fall into capital expenditure, expenses of business and drawings of partners, and the task here is to see that heading No. 2 (expenses) gets its proper share; in consequence all must be looked at. In all investigations it is necessary to keep in view the motives of those who prepared the accounts. In the present case it is to show as good a profit as possible, consequently it may naturally be expected that debatable points have already been decided in favor of the vendor, and unless the accountant raises a protest, judgment "goes by default." An examination of the various accounts showing a capital expended prior to and during the period should first be made; by this means some general idea of the requirements of the business will be obtained. Then each item taken or the voucher or invoice examined before the item is passed. The outlay relative to the

capital will indicate to some extent the expected life of the machinery or other kind of plant, and be a guide to the vexed question of depreciation. In many businesses the partners are in the habit of making small payments for the purposes or encouragement of trade, some are careless and take no heed, others compound the outlay and take a weekly sum to cover it. Naturally it will be wrong to omit these items or allow them as drawings. The expense account may be made up in two ways; either passed through the dissected invoice book or journal at the time of the liability is incurred, or posted direct to the impersonal account from the cash book. If the latter, care must be taken that those outstanding at the end do not exceed the items of a similar character at the beginning, it would be better to rectify each period or year, although on average profit it may be enough to add or deduct the difference between the total wrongly included and that left out at the terminating date.

In the event of the premises occupied by the business being the freehold of the vendor, care must be taken to see that a charge equivalent to rent is included if the company should not be purchasing the freehold. Rents received from underletting premises, if included, should be stated separately.

As regards the question of the accountant's certificate, this should be carefully framed to show exactly what the profits certified to include or exclude, or perhaps it might be better to put it—what has been excluded from expenses before arriving at profit.

In the certificate of report what is not said is often of greater importance than the actual phrases used. The accountant should strive to make the certificate a record of past facts only, and set out such facts so that they may come up to the desideratum required in the courts of justice, viz., that they shall state "the truth, the whole truth and nothing but the truth."

In one respect the truth may be told, and yet not the whole truth, that is, in a certificate of average profits that does not give the amount for each seperate year. If the profits are gradually increasing it seems natural that the certificate should say so. If they are not, then a material point necessary to bring out the whole truth has been suppressed.

Let your certificate clearly state if and how much depreciation has been deducted, and whether manager's or principal's remuneration has been included in the expenses. It is all very well to certify to profits at, say, $100,000 per annum, but if there has first to be deducted $10,000 for depreciation, anything up to $5,000 for manager, and perhaps another $5,000 for directors' fees, the anticipated dividend so glowingly portrayed by the company promoter is considerably reduced. The public too often forget the difference between the profit as shown in a private concern and the profit of a company available for dividend. We, therefore, cannot insist too frequently on pointing out the difference.





In stating that the certificate must only have regard to the past, it does not mean that the accountant having the conduct of the investigation must himself disregard the differing conditions under which it may be contemplated the business shall be carried on. This leads up to the amalgamation question, which has lately been rather in fashion.

Unless the certificate clearly shows that every business is making a profit and how much, the statement of a lumped total is valueless, whilst the statement as to remuneration to proprietors (whose number is sometimes legion) is even more necessary. Still worse is it when the proposed company has only an option to purchase a certain number of retail corners, which option is probably only exercised in regard to a part of them, and, if exercised by unscrupulous persons, it may be by a selection of those most profitable to themselves and most unfit for the purposes of the company.

Transfer of Business Undertaking. Such transfers may be of two kinds, the client may be purchasing the entire undertaking, or he may be intending to join it in the capacity of a partner; thus it may be necessary to make a distinction even here. Again the chief anxiety must be to see that no legitimate item of expense is omitted, and that the books are true records. Not only should the inner working methods be inquired about, but if it is a ready-money business where there are vouchers or duplicate bills given to customers, or the records of a patent till, these should be examined as vouchers supporting the receipts and showing their nature. A professional man should support his gross earnings by diary or office day books, and so on. The search for expenses follows the line of an ordinary investigation.

Another point to be borne in mind is: What difference will there be after the change that would affect the results? For instance: Two partners may have carried on a business with no charge for services of either, the purchaser, if not intending to have a partner, may be compelled to take a manager, thus at once eating into and reducing the profits that the past would show. It may be thought that private expenditure would be sacred from the gaze of the investigator. I should say, within reasonable limits, "not so." Let me suppose two cases, one where the amount drawn from the business is small indeed, evidently only enough to satisfy the most moderate needs, whilst in another case the total is large. I should look at the surrounding circumstances, and probably place no prying eye on the details of the first supposed case, whilst in the latter I should scrutinize each item.

When attending on one occasion I was refused access to the private ledger, except as to purchases, sales, discounts, and fixed charges for rent, etc., on the plea that the other expenses are as the purchaser chooses to make them. I need hardly say I referred back to my principal. On another occasion I was refused access to the pass book, and as I declined to certify without, that business was not transferred. Speaking generally,

unless everything is open to the investigating accountant, he should refuse to certify. It is not so much what is placed before him that requires care, as what may not be put forward. Our anxiety should be to leave nothing out. Every trade has its technicalities, and if we are without a special knowledge of the particular trade, justice to the client requires that, before commencing, we should seek to learn all possible about it. When it is a question of partnership, yet another danger has to be looked for and avoided. The actual position of the person already in the business must be ascertained after being satisfied as to the total profits or earnings. Not only will it be necessary to see that the proposed capital of the combined partnership is sufficient to enable the new ship to float, but the personal position of the other man, both in and outside of the business, should be searched for. If he is a man without other means than is already in the business, the client should know that he is not relied upon for further capital if the firm ever get into a tight corner. Is he in debt outside the business Does he habitually overdraw his account of profits? If so the client should pause, if not retrace his steps altogether.

These are legitimate and necessary inquiries, and to ascertain them correctly we must of necessity look into the private accounts where periodically recurring payments specially require explanations. Too often a partner retires with a desire to get out of a bad thing, not caring who may be drawn in. If possible, any information gleaned from the books bearing upon his retirement may be useful.

Are the liabilities being paid as close to due date as, say, at the commencement of the three years under investigation? Are expenses increasing? If so, is the increase in points which show carelessness or want of close supervision on the part of the gentleman with whom the client may have to work? All these and many more (whilst not strictly bookkeeping) will be valuable information to the client, and perhaps save him from throwing away his money."

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An investigation where fraud is suspected need not necessarily be to discover actual theft. It may be to detect the falsification of the accounts by a partner who desires to inflate profits in order to draw out a larger proportion than is actually due to him, especially if he be paid partly by commission, or receive a larger share of profits in proportion to his capital than the other partner. Or it may be that one partner desires to reduce the profits in order to buy out the other at a lower rate, and thus acquire the business for his sole use.

In such cases the investigation will be similar to those already mentioned, but inquiry should be made on the following points:

(1) What supervision is exercised by the principals, and do they exert any oversight on each other?

(2) Is any system of periodical returns in operation?





(3) Are all the partners technically acquainted with the business?

(4) Is the suspected partner a man of reputed integrity? Is he steady, and what is his private financial position?

(5) Are the terms of the partnership deed literally carried out?

If, however, the misappropriation of cash is suspected, the following methods of fraud are the most probable:

Omission of Debts Collected. In this case the cash received is either entirely omitted and the debt written off as bad, or it is entered on a later date, a subsequent sum being retained to meet the deficiency.

Sometimes, also, an entry will be made through the returns book, as though the goods had been sent back or allowed for.

The counterfoil receipt book (if any) should be checked, the date and discount being specially noted, as over-statement of the latter is a frequent medium for fraud; whilst a careful scrutiny should also be made of the sales ledgers, the balances being traced, and particular note taken of any accounts in which items appear as owing, although subsequent debits have been paid.

It is often necessary for the accountant to himself send out statements to all the customers, asking for a verification of their accounts, this being the best possible test to discover any inaccuracies; but if this course be adopted the items included in the statement should be checked from the journal and cash book to the ledger on the same day that the statements are dispatched, or subsequent alterations may be made, and it is desirable to use a different colored ink for checking each batch.

Wages. The most common methods adopted are "dummy men," errors in addition and extensions, and subsequent alterations after payment.

An examination of the wages book will reveal the two latter peculations; whilst to detect the former, the time book should be obtained and compared, a list being obtained from a responsible person of the names of all the men then working on the place.

Omission of Sales. Copy invoices should be compared with the order book and goods outward book, and afterwards checked to the sales journal.

As regards cash sales of "old machinery," it is only possible to inquire into the system of internal check in existence, and obtain information from extraneous sources.

Fictitious Payments. As false or duplicated entries may have been made, the bank pass book, counterfoil check books, and vouchers must be examined. If the posting is to an impersonal account, the invoice should be attached to the receipt, as otherwise the former may have been also passed through the purchase journal and paid for previously.

Goods Bought. The invoice price may have been inflated either by alteration or through collusion with some person in the seller's office. The invoice should have been "passed" by the person receiving the goods, and if this has not been done, or there has been any alteration in the date, a satisfactory explanation must be obtained. Statements should be

produced for all unpaid accounts, as any discrepancies will in this way be at once revealed; in fact, if receipts for payments have been forged, there is no other method by which the fraud can be discovered.

Concealment of Certain Books and Consequent Sources of Income. A list should be obtained of all books in use, and a sharp lookout kept for transfers.

Deficiency in Cash Balance or Misappropriation of Securities. An examination will reveal any discrepancies in this direction.

Stock Over-Stated, or Over-Valued, or Alteration of Ledger Balances Already Checked. These methods are usually adopted to cover up defalcations, in the first case to show a sufficient profit, and in the latter to make the books balance.

Theft of Stock. This is always difficult to trace. The first step is to thoroughly examine the trading account, and by ascertaining the gross profit which should have been earned, taking into consideration the cost of the material sold, the approximate amount of the suspected deficiency can be gauged.

If the discrepancy be confined to one department, and the goods sold are capable of identification, stock accounts can be constructed, but if such be not the case, the investigation will be confined to the examination of invoices for goods purchased with the goods inward book and duplicate orders, and of the copy sale invoices or sales journal with the goods utward book and order book.

An investigation of this description usually, however, demands some technical knowledge, and therefore the assistance of one of the staff is very desirable.

In nearly every business some form of rough stock book or weekly return is in use, and these must be obtained and compared with the other books.

Manipualtion of Commission Accounts, Part of Overcharge Being Repaid by the Agent. The commission accounts should be examined and the calculations checked, the rate being ascertained from the original correspondence or agreement with the agent.—Exchange.

## (111) ACCOUNTANTS AND SUBSEQUENT INFORMATION.

Query. In auditing a set of books for one year ending December 31st, and commencing the work in the subsequent March, is it correct practice for the accountant to take advantage of such information on the books as at date of audit which affects values indicated on the books December 31st? Take bad and doubtful debts, for example.

Solutions. The accountant being employed to audit the books up to a certain date, cannot take cognizance of any subsequent happenings in his statements and reports, but he should undoubtedly make them the subject of a subsidiary report. For instance, after his certificate, he should say, "It is very important and proper for me to state that since





the end of the period covered by the foregoing audit, certain accounts then considered good, have become of doubtful value, if not entirely worthless, as per the appended schedule, etc."

An accountant is a man who is supposed to possess tact, caution, firmness, fairness, good temper, courage, integrity, discretion, industry, judgment, patience, clear-headedness, and reliability.

The answer to this query can be Yes, and it can be No. The answer all depending a great deal for whom the audit was made and why it was made. If it was made for a client who intended to invest money in the concern, the accountant to have the interest of his client at heart, and who wishes to uphold the dignity of his profession, would undoubtedly include any subsequent facts learned in his report. It would not be necessary for him to include it in his report proper for the period up to December 31, but simply add it as a sort of foot-note, or P. S. But, if it is for a person who just wants to know how the company stood at the end of the year and whether the books are correct and show the true facts up to December 31, then it would not be necessary for him to mention that some accounts have become doubtful and bad since that time, as he would have no means of finding it out unless told so by a member of the firm, or going over the work subsequent to December 31, and this he is not asked to do.

But an accountant who possesses all of the above qualifications, whether his client asked him to or not, should report to his client the exact condition in which he knows the company to be.

Take this case: On December 31, a firm writes to you and asks you what you know of a certain young man who resides in your town, and who has made application for a position with the inquirer. For some reason the mail is delayed for several weeks, and when you get the letter, you look up the young man's conduct. You find that up to the time that you should have received the letter, the young man had an apparently flawless reputation, but you find that since that time he has become unreliable; would you give this information to the firm with whom he made application for a responsible position? I think you would. Then why not the accountant give the same information to a client who intends to invest probably a large sum of money in the business?

The accountant should include in his report and statement, the fact that certain accounts have become bad or doubtful since the end of the previous year, for the reason that the majority of accounts which subsequently become doubtful do not reach this condition in a month or two, rather is it a process extending over many months, perhaps years; in other words, if an account has to be considered bad on March 1st, it is more than likely that the unhealthy condition of this particular business was in evidence on Dec. 31st, and just because the creditor is unaware of this, on Dec. 31st, is no reason for not including it in a statement of the business up to this time, although made out at a later period.

Even should an account prove to be an exception to the above and a solvent house become insolvent in the remarkably short space of two months or less, would not common business sense suggest providing for the loss in the same year in which the profit would be ordinarily recorded, and would not prudence lead the accountant to provide for the depreciation just as soon as possible; that is, in the preceding year's business, seeing the books and statement are not finally completed and there is yet time instead of waiting for the end of the next fiscal period?

## (112) ACCOUNTING, HISTORY OF.

A great deal has been written in regard to the methods used by ancient trading peoples for the purpose of recording their commercial transactions. A very interesting historical sketch will be found in the little book entitled: "The Antiquity of Book-keeping," by John William Heaps. Mr. Heaps describes discoveries in this direction in connection with Phoenicia, Arabia, Chaldea and China.

The development of the Science of Accounts, as we know it, has been gradual and slow, but like many another science it may have been discovered, lost and rediscovered many times since the world began. It is certain that mankind has always traded and that trading necessitates the keeping of records, and as accounting is so closely allied to mathematics there is every reason to suppose it is of most ancient origin.

One of the earliest actual traces of a record of receipts and payments appears to be found in the Assyrian tablets discovered by Sir Henry Rawlinson, and supposed by him to be "personal expense" books. Even so, these tablets would indicate a great familiarity with the subject of accounts, for if a strict account were kept of personal expenses there would doubtless be more elaborate and thorough methods of dealing with commercial transactions.

The first record of a sale in exchange for money appears to be the sale of the field and cave of Machpelah to Abraham for four hundred pieces of silver, but therei s no doubt that all the great ancient trading nations from Babylon to Rome had more or less elaborate systems of book-keeping or accounting. That the Babylonians kept books of account is certain, as some of their ledgers are now deposited in the British Museum, London. They consist of tablets, each set being deposited in a separate jar, probably so that they could be "balanced separately" and any "errors easily located." Here may, perhaps, be traced the origin of the card system. Part of the business carried on was in the real estate line, the rent of a moderate size house being one-third of a shekel of silver per year. As a shekel of silver is valued at about sixty cents, we can appreciate what we miss by living in the twentieth century of the Christian era.

The first treatise on book-keeping is said to have been a translation from an Arabian original, but no copy is in existence. The first actually





known work on double entry is supposed to have been written by Lucas de Burge, an Italian friar, and was published in Venice, A. D. 1495. The first treatise on the subject in the English language was published in London by John Gowghe in 1543. It was afterwards republished in 1588, by John Mellis. The system taught thereby required the use of three books, named the memorial, journal and ledger. We suppose the memorial to be another name for "day book." The treatise of Stevinus, published in 1605, applied the double entry system to the accounts of public or government offices. The work of Mr. E. T. Jones, of Bristol, published in 1796, is spoken of very highly as being a long step in the direction of our present practice, which appears to be almost, if not quite, the perfection of analytical and mathematical science as applied to accounting.

Dr. Kelly's "Elements of Book-keeping" may also be mentioned, which appeared in 1801. This work contains a short history of the literature of book-keeping, and is perhaps the most comprehensive account of the subject to be found in any work on book-keeping.

This work is considered as the first attempt to introduce the practice of the counting-house, or office, into schools, by a person who derived his information on the subject merely from the hints of merchants, without having actual practice. The work is arranged according to the methods in use in some counting-houses, but no attempt has been made to improve or remedy any defect in practice.

Following Dr. Kelly is Mr. James Morrison, a Glasgow accountant, who publishes his complete system on merchant accounts and modern principles of book-keeping in 1808; this work ran through several editions, and was adapted for school use. Mr. Morrison is spoken of as being in his later editions one of the best authorities on the subject, as his work was doubtless at the time of its publication the most comprehensive work upon the duties required of a merchant's book-keper, treating of the various documents required in commercial transactions, as well as in book-keeping, by several methods.

## (113) ACCOUNTING SYSTEMS.

Practically, there are but two systems of accounting in use in the commercial world, viz., single entry and double entry. These two systems will be described hereafter under their respective titles.

The difference in the requirements of manufacturing, trading, and non-trading enterprises is so great, however, that the system of accounting required varies greatly both in scope and detail, so that it might with propriety be said of many businesses that their accounts were arranged on a special system. It would be utterly impossible to attempt to set down the differences to be found by a comparison of such systems, for obvious reasons, but so far as possible a number of such systems will be described in detail as this Encyclopedia proceeds. The accountant

will bear in mind that the object of all systems of accounts is to exhibit the result of the transactions of the business during specified periods, arranged in such a manner as to inform the proprietors of the business of the amount of revenues and how they have been produced, the amount of expenditures and their details, and the net income remaining. The best system of accounting, therefore, is the one which will furnish these particulars in the clearest possible manner, with the smallest expenditure of time and labor.

### (114) ACCOUNTS, SCIENCE OF.

The recording of the transactions of a business or industry of any nature. The ability to converge all transactions of a business to a focus, which shall embrace the whole and permit of their proper comprehension and classification. The faculty of so systematizing accounting methods that the best results shall be attained with the least labor, expense, or possibility of error or fraud.

Among the many excellent definitions of accountancy may be quoted the following: "Accountancy thinks out, and thus finds out, with logical and mathematical accuracy, the condition of affairs of any business enterprise."

Accountancy gives account, not only of its employer's affairs, but of its own accounts; so that a manager or proprietor, whether nation, municipality, company, body of voters, or individual, may know how matters stand; may render in turn the same intelligent account to any third interested or disinterested party; and may keep a complete surveillance over all the accountable agents of the enterprise.

Accountancy as a profession is brought into very close touch and relationship with other important departments of business activity, and the distinction between it and one and another of these is not always clear to popular apprehension. The accountant's confidential relation is with the administrator or proprietor, and it is only as the representative or as the helper or advisor, of his client, that he has to do with the functions of others. He is not, for instance, the book-keeper of the concern; nor does the expression "expert book-keeper" describe his attitude or relation either to that functionary or to any other corps of book-keepers, however large and important, much less to the establishment or enterprise in its entirety. He is, however, a book-keeper in the sense that he thoroughly understands the ins and outs of that art; and as the representative, for the time, of the business, he critically examines the accounts as recorded in the books in order that he may give to his employer a scientific showing of the financial condition of the enterprise.

### (115) ACCRUED.

Increased by effluxion of time; something added. In accounting, generally applied to amounts earned, but not received or entered on the





books (such as rent, wages, interest, etc.), at any given date on which the balance sheet is compiled.

### (116) ACTIVE PARTNER.

One who has a direct interest in a business through investment, being proportionately responsible for the liabilities, and sharing proportionately in the profits of the business, and who takes part in the daily management of such business.

### (117) ACTUARY.

An official who calculates and tabulates for insurance companies the average risks on which all insurance premiums are based.

### (118) ADEQUATION.

The act of equalizing.

### (119) ADDITIONS AND BETTERMENTS.

A term sometimes used to describe expenditures which increase the value of equipment, and are not merely replacements or renewals.

### (120) ADDITION.

The uniting of two or more numbers in one sum.

A recent work on Higher Arithmetic says: "In computing, book-keepers whose business leads to rapid addition, omit much that would seem necessary to the ordinary student, and not infrequently add two columns at once, a power gained only by practice in their profession." It is undoubtedly the aim of every book-keeper and office man to attain a high rate of speed in addition, coupled with accuracy, and various methods have been devised to facilitate both speed and accuracy. While methods for effecting accuracy will be considered under the head of "check figure," etc., those which relate to attaining speed in addition may appropriately be considered here.

The most common method used and recommended by experts in this line is the learning of combinations of figures, so that 9+8+7, for instance, will be read as 24 by one operation of the mind. Thus, in reading, we do not say O+N+E equals ONE; neither should we say 9+8+7 equals 24.

Numerous tables have been prepared to aid the student in making himself thoroughly familiar with the various combinations of numbers, and some text books furnish extensive drill tables which should be found of great assistance. Drill tables are also constructed on cards, each card bearing a combination of two or more figures. By shuffling and reshuffling these cards the drill exercises are constantly varied, which is certainly an advantage over printed tables where the relative position of the combinations never changes.

The dropping of tens is also frequently used by experts who keep account of the tens dropped in a column with the fingers of the left hand. It requires considerable practice to become efficient with this device, and at

first the frequent miscalculation of the number of tens dropped will be apt to discourage the student. Another method of dropping tens which will perhaps be better for beginners to use is to place a dot against the figure where the ten is dropped. Thus:

4
5.
6

Another method in considerable favor is the grouping of figures above 10 and under 20. By this method 8+7 becomes 10+5. While this particular principle does not appear to be entitled to much credit in single column addition, there is no doubt of its usefulness in double column addition. In the appended example the operator adds both columns by the following process:

46
83
27
34
76
---
266

46+80+3+20+7+30+4+70+6

which he reads: 46, 126, 129, 149, 156, 186, 190, 260, 266.

Proficiency in this method will soon enable the student to add double columns without separating each number as above shown, the mental process becoming practically instantaneous.

Under the heading of Amusing Arithmetic will be found a description of some of the tricks which have been used to mystify the public.

### (121) ADJUST.

To regulate; to bring to a proper relative position.

### (122) ADJUSTING BOOKS.

Preparing statements based upon data obtained from books of account which shall indicate and settle the different interests of a business, and to which statements the books must be made to conform.

### (123) ADJUSTING ENTRIES.

Entries necessary for the adjustment of the respective interests of a business. A cross entry made in the journal to correct an error, or rectify an overcharge, etc.





### (124) ADJUSTING FIRE LOSSES.

See fire insurance.

### (125) ADJUSTMENTS—ACCOUNTING.

The following examples of ordinary business adjustments may be found of interest. They are quoted from subscribers to THE BOOK-KEEPER. As accountant for a certain railroad in Nevada, I was caused to do "some tall thinking," which was as follows: A certain old bridge, which was, however, in good condition, was removed and a steel one placed. The original bridge was included in cost of road.

In my distribution I first charged the new one and incidental expenses to construction, but on thinking the matter over I decided to charge the "cost of road" account, for the following reasons:

This was not an addition to property as it replaced something of value which change was not actually needed. It did not enhance the value of the road to the extent of its full cost, for a railroad's construction account means an addition to property. It was not an operating expense nor was it a repair of any sort. So after some thought I adjusted my original entry and charged the same to cost of road. That account means the cost of original construction, the additions, etc., going into the construction account and others.

The most interesting case with which I've had to deal was in settling up the work for a firm of three members. There was a disagreement; all were to separate and engage in some line of business; each desired the original stand and firm name; so stock, fixtures, lease and firm name were put up to be bid on by the partners. The lease and firm name up to the disagreement was an unbooked value. As soon as a price was established it was charged to the successful bidder in a special adjusting account opened to him and credited to a firm name and lease account. It then became an asset in settling up the old firm's business. All other items such as paid for advertisement, stationery, rent, interest, etc., for all amounts extending beyond date of settlement were charged likewise to this adjusting account aud credited to their respective accounts.

I had a very interesting example of adjustment a short time ago. We had a boiler explosion at one of our plants last fall which destroyed two large boilers, demolished the boiler-room and destroyed several machines, but fortunately no one was seriously hurt. We carried $10,000 insurance on the boilers. New boilers, engine, and machinery were bought to replace that which was destroyed and new engine house built. My first move was to get the value of everything destroyed by the explosion from old inventory book, then the following journal entry was made:

Boiler Explosion Account, Dr., Mill Plant and Machinery, Cr.
For value of property destroyed.

This transferred these items as they stood on our books before explosion, to the boiler insurance account. Then when insurance was paid this account was credited with the amount and cash charged. Explosion account was also charged and wages credited for labor of men cleaning up debris. The balance of this account then showed the net loss on explosion. (No account was taken of loss of business while plant was idle as the owners did not care to take this into account. As new machinery was bought and engine house rebuilt, these items were charged to plant and machinery, so that when all had been rebuilt and new and improved machinery installed, the latter stood on inventory at cost and the old charged off to explosion.

The net loss on explosion was $3,500 and as it was a pretty large amount to be charged off in one year, we decided to charge one-fifth of the amount to profit and loss each year until the account is closed. We therefore charged off $700 and held $2,800 as a suspense account or passive asset on our books.

The insurance covered old boilers and machines and as the new boilers, engine, and machinery were all of the latest and best pattern, it seemed to the writer that it was best to handle it as he did. Insurance account was also credited with old iron and machinery sold for junk.

A short story publication set aside $50,000 to pay for accepted manuscripts during the year. Each month this account is charged with payments for any accepted stories, the balance being brought down as an asset.

### (126) ADMINISTRATORS' ACCOUNTS.

See executors' accounts.

### (127) AD VALOREM.

A term used to denote a duty or charge upon goods at a certain rate per centum upon the cost or value as specified in the invoice, as opposed to a specific sum upon a given quantity or number.

### (128) ADVERTISING AGENCIES—ACCOUNTING METHOD FOR

(Article No. 1).—Of all the many and varied lines of business carried on in the world, I think that to the majority of people, an advertising agency is x—the unknown. And yet, any intelligent person picking up a magazine or newspaper, finding it consists more or less of advertisements, must often ask the question, "How in the world is this mess of advertising placed here?" Of course, a good deal of it is placed direct by the advertiser, but this constitutes only a small fraction of the total advertising done. The medium by which the remainder of the advertising is placed is known to the business world as an "advertising agency." These concerns





receive from the newspapers and magazines they insert their client's advertisements in certain commissions.

An advertising agency charges a commission for its services in handling the advertising, and for this commission makes up the "copy," sends the orders to the paper or magazine, sees that the ads are run regularly and properly, and pays the paper's bills. Drawings, printing and such like extras are charged at cost.

The commission consists of a percentage on the amount of advertising paid for to the paper. Of late years, this percentage has steadily declined, owing to the great competition in this most profitable field. A few years ago agencies were so few and far between that they could charge their clients almost anything they pleased without fear of losing their business. Twenty and twenty-five per cent was about the average commission charged, but there were advertisers, I should say adventurers, like the old Louisiana lottery, etc., whose profits were so large that they did not object to paying as high as 50 and 100 per cent. That sounds exaggerated, but it is a fact, nevertheless, and in spite of it, they got rich and prospered till they were driven out by the government. To compete with its rivals today, an advertising agency must know what the lowest commission is which it can safely charge its customers and still make money; but to do this, it is necessary that its expenses be kept on the lowest possible level, and that its books and records show the condition of the business. By keeping down its expenses, I do not necessarily mean that it should go out into the streets and lanes looking for the cheapest help it can get. The success of an agency depends in a very large measure on the efficiency and intelligence of its staff, and to keep a lot of incompetent persons on the pay roll, to the detriment of the others who are the life-blood of the concern, is to court disaster, for good men want good wages, or they go to other agencies who are willing to pay for, and are always on the lookout for, the best they can get.

In regard to the book-keeping in an agency, it is useless to state how important it is that this should be accurate, and it is a fact that the majority of agencies are complete as it is possible to make it, but very slip-shod in their accounting methods. There are, and must be, exceptions; but those who have a good system are loth to describe their methods to their less fortunate brethren. The system I am about to describe is, as far as I know, original, but is in every way satisfactory and can be carried on without any hardship, and will give the firm all the information it is in need of to enable it to compete with its rivals.

Many agencies use the monthly magazine exclusively, in which case the handling of their accounts is as simple as it is profitable; but when a firm has clients who use every newspaper in the country to the extent of about $25,000 a month, the accounting assumes more alarming proportions, the checking up of the papers auditing the newspapers' bills and

making out the customers' bills every month being an enormous contract to undertake.

This accounting scheme involves:

1. Keeping a record of insertions.
2. Keeping the accounts with the papers.
3. Keeping the accounts with the customers.
4. Keeping the general office accounts.

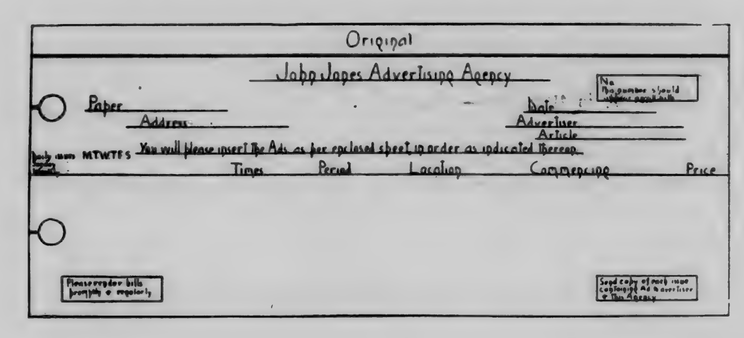
The salesmen of an advertising agency are known as solicitors. They should in all cases ascertain the rating of their prospective customers, both for their own and the firm's protection. They should also be well enough acquainted with the business to be able to make the rates for their clients and show them where their advertisements should be placed in order to bring results.

Having closed a contract, the solicitor goes ahead and has the "copy" drawn up. This, together with all the information connected with the running of the "copy," is sent to all the papers his client wishes to use. If the paper accepts the contract at the price stipulated, they do so on a form attached to the original one sent. This is then filed away for future reference.

Each solicitor and every member of the firm who is empowered to make advertising contracts, is given a book ruled as shown, in which he enters all the particulars of the contracts as denoted by the headings on the debit side of this book.

The orders are sent to the newspapers on order forms, which are made in duplicate and punched for a binder.

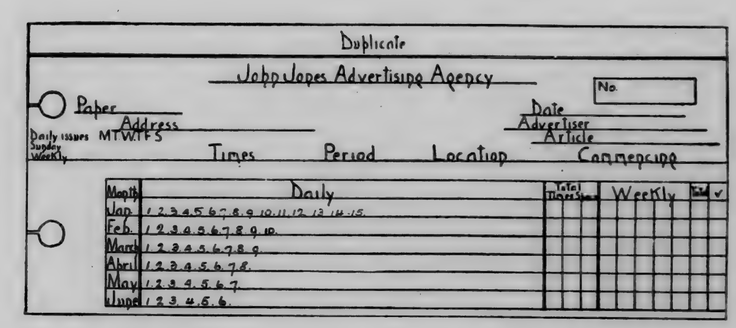
ORDER FOR INSERTION.—The original is pink and is sent to the newspaper, and the duplicate is yellow and goes to the checking department.



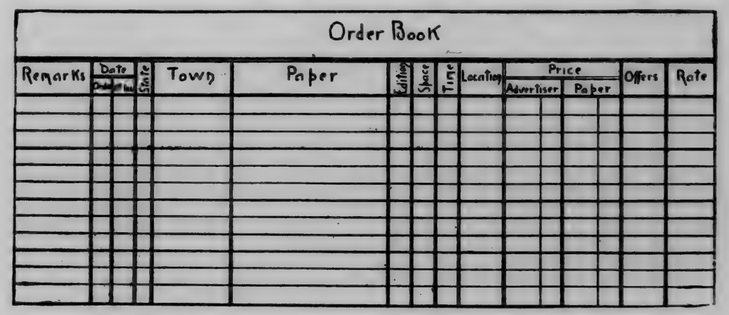

Short time orders are sent to the auditing department as soon as completed and time orders are sent out every month end.

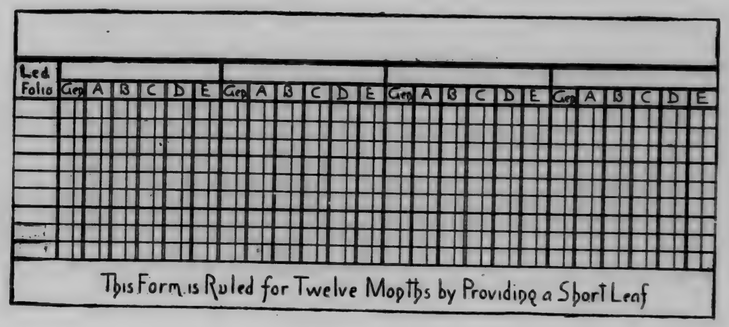







DUPLICATE ORDER FOR INSERTION.—Completed orders are filed in a binder in the auditing department, and uncompleted orders sent back



to the checking room. The total insertions and space, as shown by the columns on the right-hand side of the checking card, are then put in the order books under each contract. The amount earned by the paper for the month is then computed, and extended out into the columns provided on the credit side of the order books. It will be noticed that these columns are in blocks of six to a month. The column headed "General" is used for extending the amount billed to the customer. The columns headed "A," "B," "C," "D," "E," respectively, correspond with the letters used for naming each newspaper ledger. As I said before, if only magazines are used, the book-keeping is greatly simplified and one ledger would be ample to accommodate all the accounts. But where there are between 5,000 and

Dr. Newspaper Ledger Cr.

| Date | Details | Fol. | Amount | Amount credited to customer's account | Date | Jan Amt | Date | Feb Amt | Date | Mch Amt | Date | Apl Amt | Date | May Amt | Date | June Amt | Date | July Amt | Date | Aug Amt | Date | Sept Amt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | |

10,000 accounts opened with newspapers it becomes necessary to have several ledgers (in this case five is the amount used), and they are sectionaliezd according to states, each section denoted by a letter of the alphabet.

NEWSPAPER LEDGER.—The balance due the paper at the end of each month is brought forward into the next month's column. The amounts posted into these columns are the same as are extended in the order book

Ledger A Controlling Account

| Date | Details | Fol. | ✓ | Amount | Date | Details | Fol. | ✓ | Amount |
|---|---|---|---|---|---|---|---|---|---|
| Jan 31 | To Supplementary Journal | | | | Jan 31 | By Order Books | | | |
| | " Cash Book | | | | | Supplementary Journal | | | |
| | " Discounts | | | | | Journal | | | |
| | " Journal | | | | | | | | |
| | " Balance - Total of individual balances in Ledger A | | | | | | | | |





columns for the corresponding month, therefore the footing of the order book columns should equal the total footings of these ledger columns, less the balance brought forward.

It is obviously impossible every month, however, to draw off all these balances into a trial balance, so we open an account in the general ledger, with each of these newspaper ledgers, to which at the end of each month we post the totals of the individual debits and credits as shown by the footings of the columns provided in all the books. We will take the order books for example. We will presume that all the earnings of the newspapers are extended out for January. This total represents the amount we are liable for to the newspapers, although they may not bill us for it for several months. Their accounts have received credit in the ledgers, so were we to foot up the total credits in the ledgers for January, that would be our liability for that month. As these credits in the ledger, however, are each and every one the same as the amounts in the January column in the order books, therefore, we take the order books and make a journal entry as follows:

Advertising account,
To Ledger A.

For amounts credited to papers on advertising earned month of January as per footing of order books.

No. 1
2
3
4
etc.

Same way with the other ledgers. This advertising account is our trading account, and these monthly debits represent our purchases.

The next form in order here is the cash book. All bills are paid by check for convenience, with the exception of amounts less than $1, for which provision is made by the cashier carrying a petty cash account. All cash received is turned over to the book-keeper in charge of the cash book.

Dr. Cash Book

| Solicitors Columns | | | | | | | Discount Deducted | Total | Discounts Received | | | | | | Name of Customer Allowed Discount | Led Fol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anderson | B. Fowler | S. McNeil | E. Wall | L. Hyde | K. Burns | | | | A. | B. | C. | D. | E | General | | |
| | | | | | | | | | | | | | | | | |

Cash Book

Cr

| Details | Voucher No. | Ledger Fol. | A | B | C | D | E | Subs'n a/c | Misc. Accounts | Salaries | Private Ledger | Sundry Accounts Payable |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
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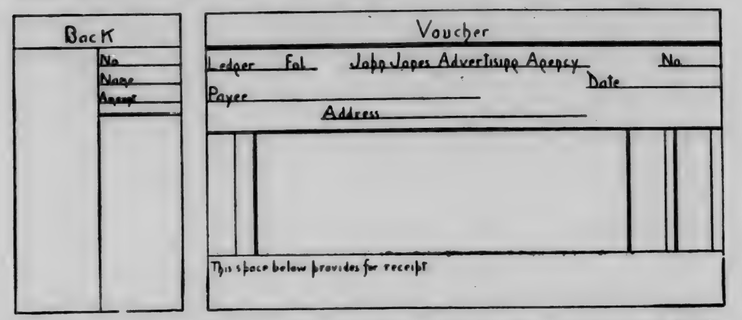
| | | | | | | | | | | | | |

He deposits it, together with all checks received, in the bank, his slip showing an itemized statement of amounts deposited.

It will be seen here also that columns are provided for each of the newspaper ledgers. As the newspapers' bills are audited, a voucher is made out and sent forward for payment.

VOUCHER (FRONT AND BACK). Reductions from bills are journalized in a book we keep, known as the supplementary journal. Advertising account is credited with the amount so deducted and the paper is charged,




columns for distribution to the various ledgers being provided in this book. If the paper does not allow the deductions, a reverse entry is made, charging advertising and crediting the paper.

SUPPLEMENTARY JOURNAL. At the end of the month the totals of these columns are journalized as follows:

Sundries,
To advertising account.

For amounts deducted from newspaper bills as per supplementary journal.

Ledger A
B
C
etc.





Advertising account,
To Sundries.

For amounts previously charged to papers and since claimed.

Ledger A
B
C
etc.

These are posted to the ledger controlling accounts, in the same manner as the totals of the order books.

Supplementary Journal

| A | B | C | D | E | Advg a/c | Fol. | | Fol. | Advg a/c | A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |

After the newspaper's bill is passed over for payment, a check is drawn, and it, together with the voucher, is handed to the book-keeper, who enters the net amount of the check paid in the column headed for the ledger to which it is posted. The discount is entered in the discount column on the debit side of the cash book, and these two amounts are then posted to the debit of the newspaper in the ledger. At the end of footed up and journalized thus:

the month the columns "A," "B," "C," "D," "E," in the cash book are

Sundries,
To Cash.

For amounts paid newspapers during month as per cash book:

Ledger A
B
C
etc.

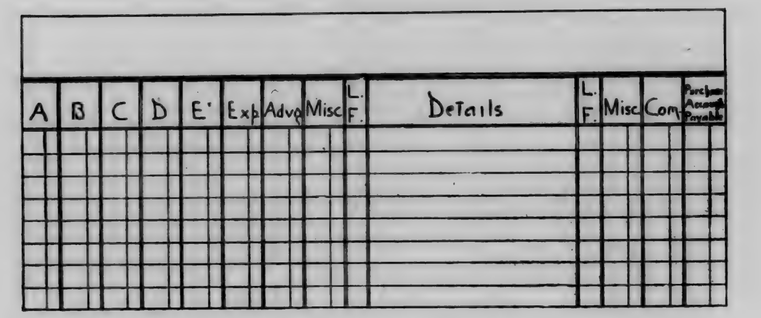
The discount columns are also footed up and journalized:

Sundries,
To Advertising account.

For amount of discounts received during month as per cash book:

Ledger A
B
C
etc.

The journal is now illustrated, and it will be noted that the debit side only is ruled for distribution to the various ledgers. This is because the credits to the newspapers through this journal are so few that it is really




no trouble to pick out the amounts at the end of the month. A closing entry for this book is then made.

Sundries,
To Advertising account.

For amount charged to papers during month as per journal:

Ledger A
B
C
etc.

Advertising Account,
To Sundries.

For amounts credited to papers during month as per journal:

Ledger A
B
C
etc.

The closing entries to the controlling accounts are now all complete for the month and these accounts should show up in the manner shown.

CONTROLLING ACCOUNTS. Each month these accounts give us the total amount due the newspapers without taking off each individual balance.

Having explained the method of taking care of the newspaper accounts, it is now in order to take the customers' ledger. Customers are billed each month for the service rendered. The amount billed is extended in the "general" column in the order book and the total of the bill posted to the debit of the customer. As contracts are put into the order books daily as received, it follows that each customer's orders are scattered through the books. We therefore provide a working ledger, and treat it thus. Open an account with each customer, on the debit side entering the date and the order book page only. When we come to make out a bill, turn





to the customer's account, which gives us the folios in the order book from which to make out our bill. The amounts billed on each order book page are entered in the ledger in pencil, unless we bill out the full amount of the contract. As the contracts expire and are billed out, we ink in the total amount billed out on that contract When the bill is complete, we credit the working ledger account with the total amount of the bill and transfer it to the debit of the customer in a small ledger we keep for the purpose. This small ledger is the one we use when taking off the balances each month and from which we make up the customers' statements.

Many people subscribe to the magazines through the advertising agencies. In order to ascertain the profit on this branch, a subscription account is opened in the ledger, debiting it monthly with the total amount paid out on subscriptions as shown by the column provided in the cash book. The account is credited with the bills rendered to the customers for these subscriptions, and the balance shows the gross profit. In regard to the other columns in the cash book (credit side), I would say that after providing columns for the various ledgers and subscription account, the other columns can be headed as necessary for any accounts to which there are a great many postings each month. By doing this it is only necessary to post the amounts once a month, and the more of these columns can be provided the more the book-keeper will find his work simplified.

It is advantageous to the heads of an advertising agency to know how each solicitor's customers are paying up. For that reason, the columns of the cash book debit side are placed there. As many customers are allowed cash discount for early payment of their bills, a column is ruled for these deductions. The gross amount of the bill paid is entered in the solicitor's column, the discount is entered in its column and the net amount of check received entered in the total column. An account showing balance of this account shows the amount of sundry purchase bills unpaid. The total amount credited to newspapers on order books, having been charged to advertising account, we have now to credit advertising account with the total amount billed out (or sales) during the month. As many advertising managers prefer that they be billed at the gross figure, instead of the paper's net, plus the commission, it follows that besides the "commission" column in the journal, the order books show a difference between the paper's net and the amount charged the advertiser. By posting, therefore, these amounts to advertising account we show a credit on that account. Having now posted all our debits and credits to advertising account, that account appears somewhat as indicated.

ADVERTISING ACCOUNT. The balance of this account represents gross profit, but no disposition is made of it until the end of the year. It is included, however, in the trial balance each month.

Having now taken care of the checking room, the newspaper accounts and the customers' accounts, it only remains to take care of the general office accounts. Practically all expenditures in an advertising agency, other

Dr — Advertising Account — Cr

| Date | Details | Fol | ✓ | Amount | Date | Details | Fol | ✓ | Amount |
|---|---|---|---|---|---|---|---|---|---|
| Jan 31 | To Order Books | | | | Jan 31 | By Supplementary Journal | | | |
| | - Supplementary Journal | | | | | Discounts received | | | |
| | Journal | | | | | Journal | | | |
| | Discounts Deducted | | | | | Commissions | | | |
| | - given to Customers | | | | | - Order Books | | | |

than those recharged to customers, are expense, and consist mainly of salaries, rent, telegraph and telephone service, postage and expressage, printing and stationery, including typewriter supplies, traveling expenses, and sundries such as laundering towels, soap, ice, etc. For all these charges I recommend a distribution journal ruled as shown.

DISTRIBUTION JOURNAL. As it is not necessary, in my opinion, to open accounts with everyone from whom we purchase, but to carry, as I men-

Distribution Journal

| Date | | No. | ✓ | Total | Rent | Telegraph & Telephone | Postage | Expressage | Printing & Stationery | Travelling | Sundries | Furniture & Fixtures |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

tioned before, an account known as sundry accounts payable. Doing this, we would dispose of the entries in the above journal as follows: the amount of business being done by each solicitor is carried in the ledger. To this is debited the amount of the footings in the order book, and is credited with the total cash received during the month as shown by each column in the cash book. The balances of these accounts show how much is owing by each solicitor's clients, and the total of these should agree with the total accounts receivable. These solicitors' accounts are carried for convenience only, not as any essential of the advertising accounting. At the





end of each month the discount deducted column is footed and disposed of by posting it to the debit of advertising account.

On the debit side of the journal we have a column headed "advertising account." Its use need not be explained—suffice to say that its total at the end of the month is debited to the account it represents. The miscellaneous columns—debit and credit—in the journal need not be explained either. They, however, are posted in detail, not in total. The credit column headed "commission" is used for the percentage charged the customer. For instance, we charge Smith ten per cent on the paper's net. Make the journal entry:

Smith,
    To Commission account.

So on all through the month. The total of this column is credited to advertising account.

The credit column in the journal headed "purchase accounts payable" is also posted in total. All sundry purchases charged to customers, such as electrotypes, printing, etc., are entered in this column, but as we pay these sundry bills every month, it is unnecessary to open an account with each person from whom we buy the goods. We carry an account in the ledger known as sundry accounts payable, crediting it with the total purchases as shown by the column in the journal, and charging it with the total paid, as shown by the column in the cash book provided for that purpose.

Sundries,
    To Sundry Accounts Payable.
For purchases during month as per Distribution Journal,
    Rent,
    Telephone and Telegraph,
    Postage,
    Etc.

This monthly posting would materially minimize the book-keeper's work, allowing him more time on more important details.

Cash accounts can be kept in the ledger if desired, crediting it with total cash paid out during month and debiting it with total received, the balance, cash on hand, being included in the trial balance. It is not necessary for me to illustrate the trial balance, as everyone knows this is merely a summary of the debit and credit balances in the ledger, the total of each side being equal if all postings have been correctly made.

At the end of the year a profit and loss statement is made up. This would be something as follows:

PROFIT AND LOSS.

| Dr. | Cr. |
|---|---|
| To Salaries, | By gross profit from Advertising account. |
| Rent, | By gross profit from Subscription account. |
| Telegraph, | |
| Postage, | |
| Express, | |
| Printing, | |
| Stationery, | |
| Traveling, | |
| Sundries, | |
| Bad Debts, | |
| Etc., | |
| Balance=Net Profit. | |

Then the balance sheet is made up:

| ASSETS. | LIABILITIES. |
|---|---|
| Cash, | Accounts Payable, |
| Accounts Receivable, | Notes Payable, |
| Notes Receivable, | Capital Stock, |
| Accounts in Attorney's Hands, | Surplus. |
| Furniture and Fixtures. | |

The surplus can be disposed of in any way the partners desire.—G. Farrar.)

## ARTICLE NO. 2.

The advertising agent is a middleman. He places his client's advertising with publishers. Publishers charge the space to the agent. The agent collects from the advertiser and pays the publishers. The agent, therefore, has need for a special system of accounting.

This article deals only with that part of the system that has to do with the ordering of space, the checking of insertions and the rendering of space bills. A more elaborate scheme than the one here described will be found necessary in the case of large agencies, but this has been found equal to the needs of small agencies, and it has the merit of simplicity.

Courts of law regard books of original entry as the best evidence because of the long-recognized fact that the more an account is copied or transferred the greater is the likelihood of error. Consequently, when fixing on this plan for handling space records and accounts, it was the aim to promote accuracy and save time by reducing copying and transferring to a minimum.

Fig. 1 shows the original order sheet, consisting of three parts perforated so that they may be separated easily. The top part is the original order and is a little deeper than the others so as to give room for the printing of the agency name and address.

When an order is to be sent to a publisher, memoranda is given the stenographer, who folds the order sheet twice, drops in two small sheets of carbon and makes the three copies with one writing. If the original copy is correct the order clerk may know that the others are.





**PUBLISHER'S FILE**

To Date,

Please enter our order for advertising of

| ORDER NO. | SPACE | INSERTIONS |
|---|---|---|
| | | |

Position Key

Gross Price Commission Discount Net

Copy Cuts

Memo.

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |

FIG. 1

Fig. 2 shows the printed side of the middle portion of the order sheet. This part of the order sheet shows blank in Fig. 1 because there the printing is on the reverse side.

The original (top part of Fig. 1) is mailed to the publisher. The

**ADVERTISER'S FILE**

Date, Nov. 21, 1905.

To Jones' Magazine 55 5th Avenue, New York.

Please enter our order for advertising of

| ORDER NO. | SPACE | INSERTIONS |
|---|---|---|
| | Quarter -page | February, March, April, May, June and July. |

Position Right hand page Key 122

Gross Price $200 Commission $30 Discount $10 $150

Copy herewith Cuts express tonight Charge Advertiser

Memo. Pass out to Collier's.

FIG. 2

memoranda is complete and ordinarily there is no need for an accompanying letter.

One of the duplicates is filed, as indicated by the heading, as a charge

memoranda against the advertiser, and the other is filed as a credit slip and also as a check against the service of the publisher.

Either a large card case or a loose leaf binder may be used for the filing of these slips. In either case, all of the charge slips against each advertiser should be kept together, and all the duplicates of orders to one publisher should be kept together.

This system saves much journalizing. At the end of the month, all the space charges against one advertiser are together, and a typewritten bill may be made up from them. A carbon of this typewritten bill may be made to be kept as a "tickler" until the bill is paid, and the total of the space bill for the month may be entered as one item in the ledger. If the book-keeper keeps a "space" account, he will, of course, credit "space" at the same time he debits the advertiser.

It will be observed that there is no "net" on the duplicate for the advertiser's file. (See Fig. 2.) It is the custom of most advertising agents to regard net cost as the proper basis for calculations and to add the commission to the net cost. Therefore, to avoid chance for error, the word "net" is omitted on the advertiser's slip, so that the book-keeper is reminded to add the regular commission and to total the proper charge directly opposite "charge advertiser." "Commission" and "discount," being given separately, facilitate the work of posting these separately to the fictitious accounts.

Turning attention to the publisher's file (see Fig. 1), we find that the duplicate filed there avoids the necessity for keeping a separate checking system. All the particulars of the original order are on the face of this duplicate, and when the publisher sends marked copies of the issue containing the ordered advertising, it is easy to see whether or not insertion has been given in accordance with instructions. All the duplicates for one publisher being together in the file, if the agent has advertisements for five or six clients in one number of a publication, they may all be checked at one time. The spaces at the extreme bottom of the form enable the clerk to check any number of insertions from one to 52; thus a year's advertising in a weekly paper may be ordered and checked by a single order. Agencies having systems of this kind use a series of symbols that they write in these spaces, one symbol meaning that the insertion was given exactly as ordered, another that the position was wrong, another that the amount of space was incorrect, another that the advertisements were omitted, and so on. The symbols save much writing.

Errors are so frequent among publishers that it is essential for every agent to keep such a checking system as is here described in order that he may make proper deductions before paying publishers' bill or be able to make just claims afterward if bills are paid before the checking is done.

If a "space" account is kept, the book-keeper will, of course, debit "space" for the amounts shown by these publishers' slips, while giving corresponding credit to the publishers.



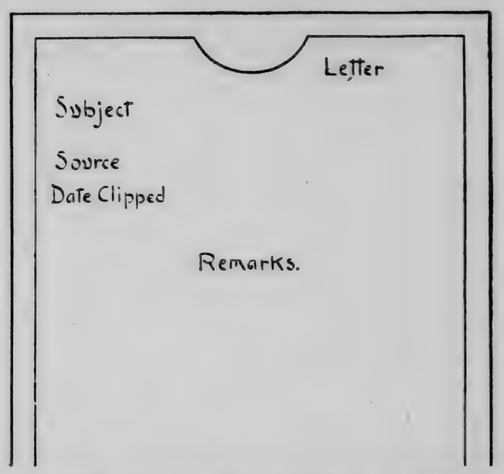


This system of keeping space records and accounts has been tried faithfully, found accurate and time-saving and satisfactory generally.—(S. R. Hall.)

## (129) ADVERTISING CLIPPINGS.

(Filing).

The clippings which will be made from magazines, newspapers, other advertisers' advertising, booklets, pamphlets, etc., should be placed in envelopes, each envelope carefully labeled with the particular lines of matter, and filed in a cabinet with the drawers sufficiently large to take the envelopes standing on their side. In small indexes, where the subjects are not so numerous, it is sometimes unnecesary to have an alphabetical index of the line of subjects, because the envelopes being arranged according to the alphabet with alphabetical guides afford that index themselves, and then there is nothing required in the way of a card index, as mentioned above.




When a large amount of matter is held (as in wholesale lines) it is sometimes advisable, instead of the envelopes arranged in drawers, to employ a system of catalog filing, so that entire catalogs may be preserved.

The writer strongly advises against the use of scrap books in connection with advertising clippings, for the very simple reason that an advertising manager can handle a clipping better than he can handle a scrap-book on his desk, and he can often paste a clipping in the copy he is preparing, thereby preventing either a lot of unnecessary dictating, or typewriting, or a tiresome job of handwriting.

Vertical files with the ordinary folder system are not entirely satis-

factory, for the reason the clippings are easily lost out the open ends. Vertical files may be used, however, by substituting large envelopes for the regulation folders.

## (130) ADVERTISING DIRECT.

The term direct advertising is used to describe all forms of advertising passing directly from the advertiser to the prospective customer as distinguished from advertising in magazines, newspapers, street cars, on bill boards, etc., which is intended to create a demand and indirectly influence the sale. As usually understood in advertising circles the most common vehicles for direct advertising are catalogs, booklets, circulars, letters (personal or form) and similar direct appeals for business. This form of advertising may be mailed in response to inquiries received as a result of other forms of advertising, or it may be mailed direct to list of names, either with a view to creating interests and thereby influencing inquiries, or for the purpose of making immediate sales.

Form Letters. A form letter, as soon as it has passed muster, should be placed in a scrap-book, preferably a loose leaf scrap-book. At the top of the letter should be written the precise condition under which the letter has been sent out; memorandum of the enclosure sent with each letter, and a number should be given the letter; this number should not be duplicated. At the same time the number is given a letter, a card should be made out for it. The face of this card shows the number of letters sent out each day, and is ruled to accommodate the record for the entire year. The reverse of the card is ruled, as shown, and is intended for a record of sales credited to this letter.

When this card is made out, a card index is made out so as to show the results from form letters in a certain month in order to compare them with months previous, and with the same month of a previous year.

If it is desirable, as it may be in a large business, to keep track of the amount of work done in each department, it would be well to make out an additional card called a "department card."

This card is used to show the amount of work done in the form letter section for any particular department of the business.

Methods of Keying Results. It often happens, in handling form letters, that the practice of giving some small article in order to get returns, will result in getting the order for the small article without any additional compensation. The bargain, or small article mentioned, will be offered at a distinct loss, the intention being to use it as a bait, much as bargains are offered in the department stores, to catch purchasers for profitable articles.

It is important, therefore, that these returns should stipulate what the order was, and where the orders are pro forma, i. e., all for the same thing, they can all be checked off on the tally sheet, shown later.





SALES

| Date | No | Amount | Date | No | Amount | Date | No | Amount | Date | No | Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

Form Letter No._____ Written By_____

Subject_____ No. in Series_____

Mailed

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Feb. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| May | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jun. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aug. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nov. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dec | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Monthly Statement of Form Letter Reports. Month_____

| No of Letter | Total Sent | No. Orders | Amount | Total Cost | Cost per Order | Remarks |
|---|---|---|---|---|---|---|
| | | | | | | |

Daily Report of Form Letter Division

Date_____

| Depart-ment | Letter No | Filled in | Env. Ad | Sent out | Enclosures | Postage | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

In order to ascertain what a form letter produces, there are several methods of keying a letter:

First—Keying it by the character of the goods offered, that is to say: If you have offered a particular line of goods in no other form except through a particular letter, it is reasonable to suppose that all orders for that goods coming in after the distribution of the letter calling attention to them should be credited to the letter.

Second—There is a method of keying the address; this should be used only in case where form letters are of such a character that you can key them by the nature of the order that would be received through them. For instance, where you send a form letter in response to a request for a catalog, even then it is a good idea to offer some special thing to be sent free with an order.

Third—Keying by departments is another method, but in the case of a large line of departments, it leads to endless confusion because you may send form letter Department No. 35 one week, Department No. 4 next week, Department No. 11 the week after, and so on; Department No. 11 letter may get mixed up in the mind of the recipient with Department No. 35 and will lead to no true reflection of the pulling power of the letters.

Fourth—Keying by the name of the writer. A great many business houses object to this method for the reason that the United States statutes make it a penal offense for a person even to open "by mistake" the letters of another. This is often done in business houses, but they require a signed permission given those who have anything to do with the correspondence of the house, by which the manager or any other employe is permitted to open mail personally addressed.

The writer confesses to a certain leaning to this method of handling the mail order proposition. The average mail order customer objects, in a negative sort of way, to dealing with an unknown person. When the first person singular, together with a man's name attached to it, is used in a letter, the mail order customer feels a greater degree of confidence. It is one of the psychological facts of business that a man feels more impressed, and is more likely to act upon his impressions, when he feels the personal touch of a particular person, rather than dealing with the indeterminate personality of a company, partnership or corporation.

### (131) ADVERTISING IN THE MAGAZINES.

Growth and development of advertising during the past few years has been one of the most interesting events in the business history of the country. This growth, although rapid, has not been of the mushroom variety, for it has been steady, and today advertising is no longer a hit or miss proposition, but, as a profession, ranks high in the list, as any work requiring originality, initiative, and brains must rank.

To understand what advertising means today in relation to business,





pick up the current number of any magazine, or newspaper, look about you on the streets, in the street cars, at the calendars you see in offices, at your theater programs; you cannot escape it anywhere.

Take any periodical and compare it with one of a few years ago, and three things will strike you instantly, first, the improvement in appearance; second, the decrease in price; and third, the increased amount of advertising.

The natural question of how a magazine can be sold at such a low price is answered when you look at the amount of advertising carried. The subscription price of the average magazine of today would hardly pay for the paper used in its makeup, the advertising is what pays. The advertising section is as attractive and widely read as the magazine section, and abounds in real art, literature and human interest.

Advertising is studied today, just as any other profession is studied, but at the same time there is a certain amount of truth in the statement that an advertising man, like a journalist, must be born, not made. A man must have that indefinable something which we might call "ad sense," just as a newspaper man must have "news sense," if he would be a success.

To some extent advertising might be called a form of salesmanship, but with a difference. The salesman has the advantage of coming into personal contact with his man, studying his mood, able to note what pleases or displeases him, adding the magnetism of his voice, an inflection there, carefully chosen words here, and the sale is made.

The advertising man, on the other hand, can not vary his words, his voice, or his inflection. He has to strike his millions of readers with exactly the same message, the same illustrations, and create a desire for the goods he wants to sell; convince the prospective buyer that his particular brand of goods, and no other, is necessary to the buyer's peace and happiness of mind; he must impress the name and quality of his goods so firmly on that unknown reader's mind, that he will never forget it, and never be content with anything else!

Of course this means that he must never let the public lose sight of his subject for a moment. Take Ivory Soap, Sapolio, Pearline, or a dozen other well advertised goods, and the public will cry for them, as a baby does for Castoria, long after all that is mortal of the men who originated the advertising and made these names famous, have gone, and been forgotten.

Why? Because the public has been educated, has been impressed with the fact that these goods are the best in their particular lines, and has never been allowed to forget it. The public is fickle—if allowed to be—but the point is, these advertisers never allow the public to forget.

Importance of Advertising.—The immense amount of money spent every year shows conclusively that manufacturers everywhere realize the importance of advertising, and the value of publicity. Whether or not advertising pays is no longer a problem. That it pays, and pays well, is evidenced by such advertisers as Cream of Wheat, Ivory Soap, Suisine

Silk, and a host of others, and the number following in the trail blazed by the pioneer advertisers in the time when it was a question, proves that the problem was solved. Today the manufacturer figures in the cost of production the cost of advertising, just as he figures the cost of labor, or the cost of material.

With this knowledge of general advertising, and its relation to business, it is interesting to watch the advertising campaign of the manufacturer who is seling his goods direct to the consumer. The inside practical details of his campaign can not fail to be of interest.

Most large houses employ, in addition to their regular advertising department an advertising agency, to co-operate with the advertising manager, and to attend to the details of placing, buying the magazine space, etc., going on the theory that two heads are better than one, and that men who are experts, and keep their fingers on the pulse of the advertising situation, just as they themselves know the pulse of the commercial end, can give better service.

First of all comes the question of the advertising appropriation, which includes the salary of the advertising manager, and his corps of assistants, space in the mediums, together with the incidental cost of drawings, plates, postage, express, etc.

The selection of a reliable advertising agency to assist the advertising manager, to advise with him and to arrange the details of the campaign is usually the next step. This being settled, the question of mediums is the important one, in other words, the selection of the magazines and papers to be used in letting the public know where, and at what price his goods may be purchased, and to create a demand for this special line. The questions of whether other mediums, such as bill posters, street car cards, or other publicity methods are to be used to reinforce the magazine advertising.

In the selection of magazines to be used, there are several important considerations; the class of people most likely to be interested in the proposition, and to become purchasers, the section of the country where these people live, and the seasonableness of the goods advertised. Ivory Soap, for instance would appeal to everyone, everywhere, while a fur manufacturer has a line which appeals only to a limited number of people living south of the Mason and Dixon line; appeals, generally speaking, only to the middle or moneyed classes, and appeals to them only during certain months in the year.

Furs, as a line, appeal to men and women alike, so in addition to the exclusive, high-class women's magazines, he can use the general and men's periodicals.

Naturally he chooses the magazines having the largest circulation in the fur-wearing regions, and plans to advertise in these during the autumn, just as people are beginning to plan on the colder weather.





In selecting his magazines, and deciding on the amount of space to use in each, he is governed by his experience of the preceding year.

The magazines which made good are, naturally, first on the list, and are given as much space as the previous year's experience would warrant, usually increased. The clever advertising man studies the different classes of magazine readers, and if possible, has a little different story for each. If two magazines of the same general class seem to have about the same circulation in the same class of people, it is usually a sign that there is something unique and characteristic in each, and it behooves the advertising man to find this difference, and cater to it.

When the matter of space is decided, the real hard work of the campaign is begun, namely preparing "copy" and illustrations.

Of course it goes without saying that "copy" is the great and important thing in the advertising campaign. It must be as strong as can be written, with the object in view of making the man or woman who reads the magazines know that here, in the factory, is the very fur garment he or she wants; strong, convincing copy, copy that sells the goods, that is what the advertising man must write if he is to make good.

And in this day, illustrations, border designs and that sort of thing must be of the highest class to attract attention, and therefore the advertising man must see that this end of the work is high class. One of the attractive features of a recent fur advertisement, was the border design formed of traps, chains, and snow shoes, all appropriate to the subject, and adding to the appearance of the advertising. The illustrations should never be such as would detract from the central idea of fur garments, although this is a mistake which is frequently made.

You will notice by the schedule (Form 1) that he has 21 quarter pages, six half pages, twenty 28-line ads, etc., to write all of which has to be planned and written and illustrated so as to make the best use possible of the space.

Copy and plates disposed of, the detail of keying the magazines is attended to. Keying is a comparatively new method of insuring to each magazine credit for the inquiries and sales made through its advertising. The ideal key is one that is part of the address, so that the person answering the ad thinks that unless this number is on, the letter will not reach the proper place, as for instance the ad in one magazine says 109 E. Sixth Street, while the Delineator has 110 East Sixth Street, Harper's 112, and so on. Department numbers, suite numbers, post office boxes, stations, etc., are used in this way and it has been found to answer much better than the old method of saying "please mention this magazine," which only a limited number of people remember to do. Giving the catalog a different number in each magazine is another method which answers very well. For example, when Mrs. John Jones writes in for catalog No. 10, her inquiry is immediately credited to the Woman's Home Companion, while Mr. Smith asking for catalog No. 8, is credited to The Book-Keeper.

SCHEDULE FOR ADVERTISING—SEASON 1907.

| | | |
|---|---|---|
| Ladies' Home Journal— | September. | |
| ¼ page | $1,000.00 gross. | |
| Butterick Trio— | | |
| ¼ page | $ 954.75 | |
| Harper's Bazar— | | |
| 1 page | $ 224.00 | |
| Woman's Home Companion— | | |
| ¼ page | $ 450.00 | |
| | October. | |
| Ladies' Home Journal— | | |
| ¼ page | $1,000.00 | |
| Butterick Trio— | | |
| ¼ page | $ 954.00 | |
| Harper's Bazar— | | |
| 1 page | $ 224.00 | |
| Woman's Home Companion— | | |
| ½ page | $ 900.00 | |
| Munsey's— | | |
| ¼ page | $ 125.00 | |
| The Book-Keeper— | | |
| 1 page | $ 132.00 | |
| Collier's— | | |
| 28 lines 4 weeks | $ 280.00 | |
| Life— | | |
| 28 lines 4 weeks | $ 67.20 | |
| | November. | |
| (Same as October) | $3,675.20 | |
| | December. | |
| Ladies' Home Journal— | | |
| ½ page | $2,000.00 | |
| Butterick Trio— | | |
| ½ page | $1,809.00 | |
| Harper's Bazar— | | |
| 1 page | $ 224.00 | |
| McClure's— | | |
| ½ page | $ 250.00 | |
| The Book-Keeper— | | |
| 1 page | $ 132.00 | |
| Collier's— | | |
| 28 lines, 4 issues | $ 280.00 | |
| Life— | | |
| ¼ page, 4 times | $ 250.00 | |
| Miscellaneous papers for Xmas | $1,000.00 | |
| | $15,582.15 | |
| Additional for incidentals | 2,000.00 | $17,582.15 |

The details of rates, discounts, and the advertisements as they appear, are checked in the advertising department before the bills are sent in to





the accounting department. Frequently these details are handled entirely by the advertising agency, who places the firm's advertising.

When inquiries begin to come in, follow-up cards (Form 2), are made out for every inquiry, indicating which periodical receives credit, giving dates when follow-up letters are to be mailed, etc.

For example, Mrs. Jones writes in for catalog No. 7, which is immediately mailed her, with a letter and order blanks, with directions for measurements, etc., and her card is made out, showing that Everybody's is to receive credit for the inquiry, and the date of mailing catalog is noted. A week passes, Mrs. Jones has not written, and a second letter is mailed her. In the course of a few days a letter is received from Mrs.

| TOWN | Columbus | | STATE Ohio |
|---|---|---|---|
| NAME | Mrs John Jones | | SOURCE OF INQUIRY Colliers |
| BUSINESS | | | RATING |
| REMARKS | Wants Russian | QUOTED | TERMS |
| | Pony Coat & Muff | 95 00 | Cash |

| DATE WROTE | LITERATURE | REMARKS |
|---|---|---|
| 9/3/07 | Catalogue | Ordered Coat & Muff |
| 9/11/07 | Letter | 10/3/07 - Cash |
| 9/19/07 | " | |
| 10/4/07 | Ack. order | Shipper's receipt |
| 10/7/07 | Shipped | 10/17/07 |

FORM 2.

Jones, who wants to know if a certain change can be made in a model given in the catalog, and what the change will cost. A letter is immediately dispatched to her advising her that the change can be made as suggested, and the coat will then cost $85, instead of $75. Another week and an order is received, and Everybody's receives credit for the sale.

After the goods are shipped, and an express receipt is received, Mrs. Jones' card reads like Form 3.

Mrs. Blank, of Ohio, wants catalog No. 10, which is sent to her, with the usual letter. No reply. The second and third follow-up letters are sent, with the same result. For the remainder of the season all advertising matter is sent to her, as her first inquiry showed some interest and perhaps at the January sale she purchases a set of furs. Her card shows these details. Of course there are a number of people who never go any farther than writing for the catalog, and while the number who write in reduce the cost per inquiry for the magazine which they read, they make no reduction on the cost per sale.

Of course, in the case of this fur manufacturer, a large number of women do buy, sending measures, money, etc., knowing that the house is a thoroughly reliable one. This is another of the important points in the advertising campaign of today; every first-class, high-grade periodical

PUBLICATION _____ DATE Sept 4/1907

ADDRESS _____ ISSUED Weekly

DESCRIPTION 28 lines every issue 17 weeks

GROSS AMT $ 1880.00 G.RATE 2.50 LINE – IN. 36

DATE OF FIRST INSERTION 9/4/07 N.RATE 2.37½

KEY 70 CASH DIS. 5%

REMARKS _____

| PAID PAPER | | |
|---|---|---|
| | Amount | |
| 9/10 | 278 | 60 |

| CR. ADVERTISER | |
|---|---|
| | Amount |

| MONTHS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sept. | | | | 28 | | | | | | | | 28 | | | | | | | 28 | | | | | | | 28 | | | | | | | 112 |
| Oct. | | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nov. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dec. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FORM 3.

protects the possible purchaser to the fullest extent by being extremely particular in regard to the class of advertising carried, and absolutely refuses to take advertising from any concern who fail to do as they agree, upon positive knowledge of that failure, consequently every purchaser knows that in addition to the reliability of the firm advertising, he may rely on the responsibility of the magazine.

At the end of the month, or the season, the cost of advertising is figured up, the cost per inquiry and the cost per sale, and a summary is made up and filed as a guide for future advertising.

This summary (Form 4) shows that certain periodicals pay better than others, that the cost per inquiry was lower on some, and the cost of sales lower on others; that some papers brought in no inquiries; also that there are a scattering few which can not be traced exactly.

This tabulated result of the season's advertising gives a small idea of the amount of money, and work, involved, the system, and detail work which enters into modern advertising.

There is such keen competition, so many in the field there is no room for theory, nothing counts but results, and in making out the list for next year, the mediums which do not show results are cut out, and the merry war goes on, advertising, the right kind, with the right mediums, being the power that delivers the goods—results.—(R. McBride.)





DAILY RECORD OF REPLIES FROM ADVERTISING FOR MONTH OF September 1907

| NAME OF PAPER | KEY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | Total Replies | Cost | Cost per Reply | Sales |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Harpers | 60 | | | | | 18 | 10 | 25 | 16 | 5 | 14 | | 16 | 24 | 30 | 23 | 12 | 11 | | 62 | 76 | 81 | 33 | 19 | 26 | | 31 | 60 | 72 | 18 | 36 | | 894 | 224.00 | 25¢ | 280.00 |
| Ladies Home Journal | 61 | | | | | 19 | 18 | 88 | 27 | 42 | 73 | | 60 | 98 | 26 | 24 | 34 | 91 | | 91 | 26 | 28 | 17 | 50 | 82 | | 56 | 26 | 20 | 34 | 92 | | 800 | 1080.00 | 1.35 | 3500.00 |
| Delineator | 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Designer | 63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New Idea | 64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Women's Home Comp. | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Everyone Mags Pattern | 66 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Home Magazine | 67 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| McClures | 68 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Munsey | 69 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Colliers | 70 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FORM 4.

## (132) ADVERTISING, CHECKING INSERTIONS OF.

In the advertising departments of all concerns placing a considerable volume of advertising, one of the most vexing details is that of checking insertions. Unless the work of the department is thoroughly systematized, bills for advertising are continually being received which it is impossible for the advertising manager to O. K., simply because he has no positive record of the insertion of the ad as ordered.

Too often this is not due to the absence of proper systems of record in the advertising department, but rather to the failure of others in the office to lend necessary co-operation. The writer has known of cases where it was almost impossible for the advertising manager to check insertions for the reason that he never received the publications. The person opening the mail or perhaps someone else having access to the mail before it is opened, would take advantage of the opportunity to secure free reading matter and carry away all the popular publications. An advertising manager who uses THE BOOK-KEEPER, recently requested that an extra copy of the publication be sent to his home address, stating that he seldom saw the copy coming into the office as some other department manager invariably found something of interest in each number and carried it home with him.

Of course the sending of copies of the publication to the home address of the advertising manager will, in a measure, overcome the difficulty, but this should not be necessary. In a well-regulated office all publications received should go first to the advertising department with the understanding that those which are of permanent value will be kept on file in that office where they can be secured by others on request.

A reader who has had to contend with this difficulty sends us a sample of the record form which he is using for the purpose. This form which is on a card, is illustrated herewith. One card is used for each publication and as the firm in question use only monthly magazines, the form provides for a record extending over a period of one year. Each ad used by the firm is known by a number. To accommodate the pages of different publications, the same ad may be set in different size, i e.,

a 56-line ad in one publication may make a 62-line ad in another. Immediately below the lines showing the number of the ads is a record showing the number of lines occupied by that ad in the publication in question. On the next line is given the key for each ad then opposite the month and under the proper number the check mark shown at the bottom of the card and indicating that an insertion has been ordered, is placed. A glance at the card shows just what advertisements have been ordered for each month.

| YEAR | PUBLICATION | | | CITY | | | | | STATE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AD. USED | PERSONAL | READER | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | No. 6 | No. 7 | No. 8 | | | |
| NO. LINES | | | | | | | | | | | | | |
| KEY | | | | | | | | | | | | | |
| Jan. | | | | | | | | | | | | | |
| Feb. | | | | | | | | | | | | | |
| March | | | | | | | | | | | | | |
| Dec. | | | | | | | | | | | | | |

A-INSERTION ORDERED V-INSERTION O.K. O-OMITTED

When publications are received, they are sent immediately to the advertising department when the ad is compared with copy furnished and checked for correct key numbers. The proper check marks are then placed on the card indicating that it has been inserted as ordered or omitted. These cards are filed alphabetically according to the name of the publication and the record enables the advertising manager to promptly O. K. bills and also to know just what advertising has been running in each publication. A comparison with the records showing the returns from advertising will then indicate which copy pulls best in any given medium.

### (133) ADVERTISING SYSTEM FOR A MONTHLY PUBLICATION.

On the co-operation given the field force by the advertising department in the home office of a publication depends much of the success of the advertising department as a whole. It is necessary therefore that the records in the home office shall be so complete that no information of value to the field representatives shall be overlooked. The field force should be kept in constant touch with what is being done by the home office; but it is also equally important that the home office know what is being done from day to day by the field force. The records here described are in successful operation in the office of a leading monthly magazine, and have been devised to meet the particular requirements of that publication.

SOLICITOR'S REPORT. That the home office may keep in touch with the work of the field representative a solicitor's report or a blank, like the



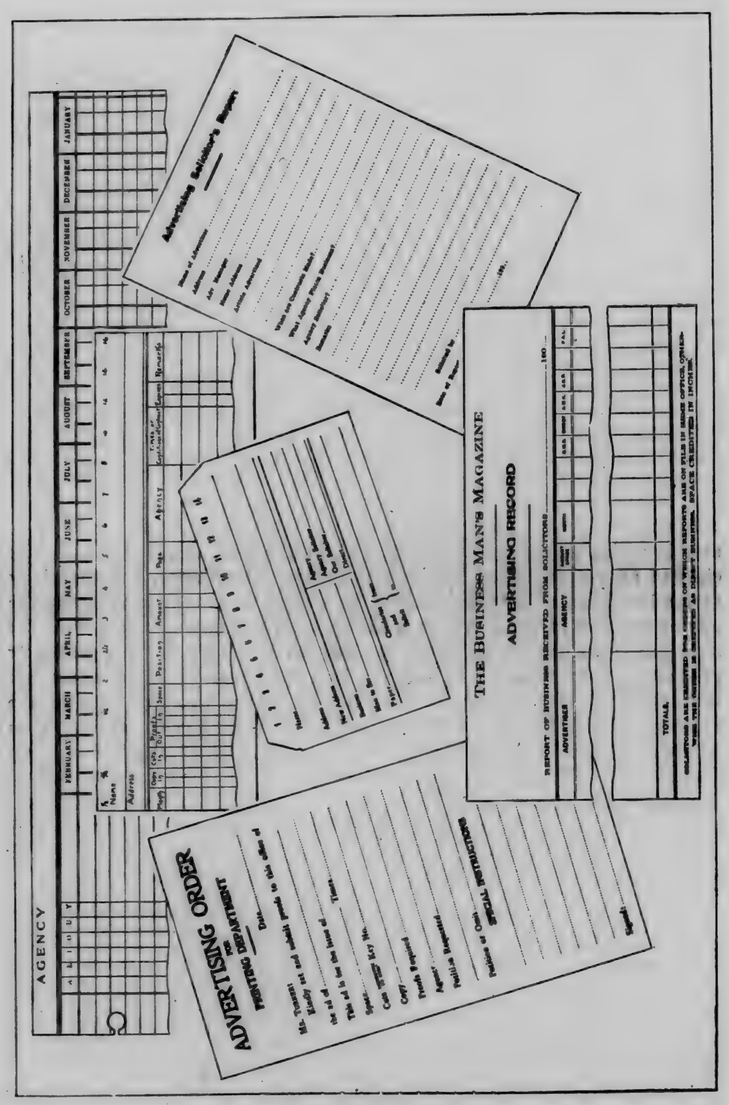


form shown, is used. Each day the solicitors report every call made on these blanks. The blanks are made in triplicate, two copies being mailed to the home office, and one retained by the solicitor. When received at the home office they are carefully examined by the head of the department, who notes on each report the day when it should again receive attention. If the report is may in May, and shows that contracts are placed October 1st, the date indicated for attention will be about August 15th, and the report itself will be filed under that date in an ordinary office tickler. On the first and 15th of each month all reports filed under that date are again brought to the notice of the head of the department, who mails them direct to the solicitor, making on the report such comments as he deems advisable. No matter whether or not the solicitor keeps a systematic file of future prospects, these reports will automatically come to light, and he will receive them at the time when he should begin a vigorous campaign to secure the business.

MAILING LIST. For the mailing list an envelope printed as shown is used. In this envelope is placed the second or duplicate copy of the solicitor's report, as well as clippings of ads from other publications. These envelopes are filed in ordinary card files indexed by states and towns, the states being arranged to conform with the territory covered by each representative. Across the top of the envelope will be noted a series of numbers. These numbers are used to indicate the line of business in which the advertiser is engaged, or the class of advertising. The class of advertising is of vital importance to the solicitor, and especially to the home office, in mailing letters or other literature. In knowing the line of business in which a man is engaged we can approach him with the strongest argument for using the publication in advertising his particular product. As soon as an order is received the envelope of the advertiser is immediately removed from the file. Reference to the report in the envelope shows to what solicitor credit should be given, so that even where the business comes through an agency, our own solicitor is given proper credit. The envelope is now filed in another compartment reserved for current advertisers, and there it remains as long as the copy runs continuously in the magazine, or until the completion of the contract. This obviates the error of sending the same soliciting literature to regular advertisers that is used in plugging prospective advertisers.

Above we have referred to the numbers on the envelope which represent different classes of advertising. To readily distinguish these a metal tab is placed over the proper number; thus, if an advertiser manufactures office furniture, a tab will be placed over No. 3. Whenever there is any special reason for communicating with manufacturers of office furniture, all that is necessary is to address the names on the envelopes bearing tabs in No. 3 position.

HANDLING THE ORDER. When an order and copy is received in the office the first step is to transmit instructions to the composing room. For








that purpose a blank headed "printing order" is used. This order is made in duplicate, the original being attached to the copy and sent to the composing room with the cuts, while the duplicate is filed under the name of the advertiser. At the end of the month, or when the issue is off the press, these printing orders are removed from the alphabetical file, but kept in alphabetical sequence, and tied in bundles. They are kept for two or three months, after which they are of no further use and are destroyed.

The next step is to enter the order on a card like the one shown, which gives full particulars of the contract, months of insertion, date copy and cuts are received, date proofs are mailed and returned, space, position, etc. A white card is used for all advertisers who send their orders direct, while a card of another color is used for business coming through an agency. The white or direct cards are filed alphabetically, while the agency cards are filed behind indexes on which are written the names of the agencies. As each advertising form comes from the printing department for checking, insertions are checked and the page numbers entered in the page column on the cards. At the same time these cards are removed from the file, and placed in another file indexed in exactly the same manner. When the last form has been checked all cards will have been removed from the original file, unless an ad has been omitted, and this in itself gives a double check upon the insertions. The numbers across the top of this card represent the space occupied in inches, magazine space usually being figured in inches rather than lines. Tabs are placed over the numbers so that we can very quickly estimate the total space in the magazine from the tabs themselves, and also tell how many full page or half page ads or any other size space we have each month. After all insertions have been checked the cards are turned over to the accounting department, and the bills are made direct from the cards. When contracts expire the cards are filed away in another file arranged exactly as in the current file. In order that we may be able to locate the card of any advertiser whose business has come through an agency, an index card is made, which is a 3x5 card, on which is typewritten the name and address of the advertiser and the name of the agency. These cards are, of course, filed alphabetically under the name of the advertiser.

To keep the field force posted on what is being done a daily report is made, the blank headed "Advertising Record," which shows the business received from each solicitor for the day. Enough copies are made to supply each branch office and each solicitor.

A summary of all advertising received from each agency is kept in loose leaf form on blank illustrated. There are twelve columns, which give the total business received from each advertiser during an entire year. Similar sheets are kept for direct advertisers and also for each solicitor.

The totals of the solicitors' sheets must equal the total of the agencies and direct advertisers' sheets and this total must in turn agree with the

total of the bills made direct from the cards. This provides a very effective check on the accuracy of the records.

While the above described system was designed especially for the use of a monthly publication, it could, with slight changes, be readily adapted to the requirements of a weekly, or even a daily.—(J. B. Griffith.)

## (134) ADVERTISING RATE CARDS.

By dint of much education and a large expenditure of money, the publication that has healthy advertising in it has been compelled to fix one rate. Advertisers have been educated to understand that a publication having more than one rate was likely to have more than two. When we pay less than someone else, we open up the possibility that we are paying more than a third party, and, inasmuch as it is no bargain unless we are getting the lowest rate at which a thing is sold, it is the worst kind of a proposition to buy space in a publication which makes special inducements.

Rate cards should be filed with circulation information as regards publications and, in some cases, it is advisable to make a simple digest on the back of the card of any circulation information you may have. As it is not necessary to handle circulation information in detail from territories in which you are not interested, it is well to have a regular rate-card cabinet, or section, if you use sectional cases, to file your rate-cards according to the name of the journal. This is much more preferable than filing according to towns or districts, as your town and state indexes are always at hand in the shape of newspaper directories that are arranged by states.

It has been the practice in some houses handling a considerable quantity of advertising through journals, etc., to write a confidential letter to the advertising manager in other houses in non-competitive lines, advertising, however, in the same lines of publications, stating frankly the amount they are paying for space in that publication and asking for an exchange of information. This is in line with the words "community of interest" that is arising among advertisers using certain lines of publications.

Form shown has been used successfully in obtaining information of the above character.

Wholesale Manufacturing Advertising. This is mainly trade paper advertising with the follow up of catalogs and booklets for the purpose of creating a demand for a certain definite and restricted line of goods. The copy is primarily intended to reach a man who is going to sell the goods again.

In preparing the copy, the main idea kept in view is to bring out the salesmanlike points that impress the retailer, or advertiser, generally in his attitude towards his own prospects. The retailer does not care how much it costs to manufacture, or make goods, but he is interested in knowing how easily he can sell them, therefore the manufacturer must call the





retailers' attention to any facts that will impress the latter with the ease with which his line can be handled to the consumer.

If the manufacturer is advertising in general mediums to create a demand for his product, this campaign should be called strongly to the retailers' attention; prices and discounts should be dwelt upon and a careful and detailed statement should be kept of all literature sent to such possibilities.

**CONFIDENTAL INFORMATION**

Ward, Brown & Co.,
Philadelphia, Pa.

We are advertisers in.....and we pay $.....per.....for our contract covering.....years.

We place our business.....

We believe the circulation to be.....

Would you mind stating to us in confidence your experience as above with the same medium?

We will be glad to return the compliment whenever we can.

Respectfully yours,
Smith & Co.

In the manufacturing line, for instance, such as hardware, where we have a very large distribution of small units, and where the character of the demand is divided up into widely different lines, it is hardly possible to publish literature that will be equally interesting to all concerned. The only really successful attempt in this line of work has been the house organ.

The list of sales possibilities in the hands of the sales department is also the advertisers' mailing list. The advertising manager should, therefore, insist that this sales list be kept up-to-date in every particular.

As the sales department and the advertising department are primarily interested in creating a demand, they accomplish this in this system of handling the records by knowing at all stages of the work what a list of people have purchased, thereby being able to determine the list of goods they may be approached upon for hitherto unsold product.

## (135) ADVERTISING, STATISTICAL REPORTS OF.

The importance of statistical reports have been recognized for a long time by the larger advertisers, especially in the retail and mail order fields. In the mail order fields especially, the statistical report has been carried to its utmost refinement.

These statistical reports are to the advertising and sales managers what the statistical accounting reports are to the accounting manager; they represent the very essence in the results of a campaign, or the present tendencies of a campaign.

It is very difficult for the advertising or sales manager to step outside from his work at hand and get a general survey of the condition of his department that shall at once be shown accurate as to detail, and conservative as to general effects.

In the expenditure of thousands of dollars it is vastly important, and in fact the success of a campaign in these days of competition depends on making every dollar count. The reason that so much advertising expenditure finds its way into the waste basket, or seems to vanish into thin air, is because there is no check—no absolute detailed check on results; the mere piling up of inquiries, or the mere piling up of orders, affords no accurate information of what a campaign has accomplished.

In the handling of an appropriation covering thousands of dollars, necessarily many different mediums are used. For instance, a page ad in "The Ladies' Home Journal," run for one year, would mean an expenditure of over $70,000; the same size advertisement run in "Munsey's Magazine" would mean an expenditure of over $45,000; in "McClure's," same price; and so on down the list of the foremost mediums, so that a total expenditure of $250,000 might be distributed over ten or twelve of the leading monthly papers in an elaborate system of supplementary work to follow up the inquiries resulting from periodical advertising.

Within a comparatively recent time, advertisers have come to realize more expensive possibility than a $2 a line one. If out of a $6 a line the fact that the $6 a line magazine does not necessarily mean any magazine we should receive two inquiries for every dollar we expended, we would be better off than if we received two inquiries from every dollar expended in a $2 a line magazine. We would be better off—in fact, we would be a hundred per cent better off, so far as inquiries are concerned, but suppose, on the other hand, however, every order we get out of the $6 a line magazine should cost us $10, and every order out of the $2 a line magazine should cost us $5, we would be better off with the least number of inquiries and more orders in proportion with the cheaper magazine on the given condition of the quantity of advertising we use, both in obtaining the inquiries and following them up.

The advertising manager must know, therefore, what his advertising is doing in the way of bringing in new inquiries, and he must go further than that in the mail order field and know what kind of people he is attracting to his proposition, because in the mail order field, the advertising manager is largely a sales manager as well; he must not only get the inquiries, but he must sell the goods.

Advertising a proposition, therefore, in the mail order field, is to advertise it by two processes; the original ad brings the inquiries with the





sufficient notation that the ad had appeared; if the follow-up system fails to land the orders, then we must reform the follow-up system; or, after carefully analyzing the former, we find that the original advertisement has promised more than we can deliver, we can bring the original advertisement closer to realities, and, while obtaining less inquiries, we obtain more orders in proportion. However, this is largely a question of advertising management rather than a question of advertising system.

The method of taking care of these reports and digests, in the shape of a statistical statement at the end of any given period, is what concerns us at the present time.

Taking the previous context outlined, we will find in the mail order business that we have the cost of any particular department elaborated. Our mailing clerk will have given us, each day, the number of inquiries resulting; the sales department records will give us the amount of orders resulting; and by reference to our sales list, we will be able to trace each order to its original source; therefore, in our statistical statement, we shall show:

First, the name of the journal;
Second, the amount of space used;
Third, the cost;
Fourth, the name of the advertisement so as to identify the copy;
Fifth, the total number of inquiries received;
Sixth, the cost per inquiry;
Seventh, the number that received one follow up;
Eighth, the number that received two follow ups;
Ninth, the number that received three follow ups;
Tenth, the number tha rteceived four follow ups;
Tenth, the number that received four follow ups;
Twelfth, the total cost of such follow up;
Thirteenth, the average cost per inquiry;
Fourteenth, the gross amount of business done;
Fifteenth, the average of business to each order;
Sixteenth, the average of business to each inquiry. This last is necessary in order to find out how much we can afford to pay for inquiries.
Seventeenth, the total average cost of each order;
Eighteenth, the percentage for advertising and selling on the total amount of business done.

Where more than one line of goods are handled, and are handled in departments, or where several lines are handled, there should be further distribution showing how much each department did, and the notations should be made to cover all the different points involved in the foregoing, for each department, and then a general statistical statement should be made out as follows:

Total advertising done in Department A;

Total advertising done in Department B; and so on, and then in each case the following should be looked after:

First, total business in the department;
Second, total number of orders in the department;
Third, total cost per order;
Fourth, average gross profit per order;
Fifth, pro rata office expense.
Sixth, same month last year.

### Advertising Pointers for the Retailer.

How to Prepare Newspaper Copy. The way in which copy is handled by the compositor materially affects the returns. Your ad should not only be set in a way to distinguish it from all other ads in the paper, but should be graceful and in other ways pleasing to the eye. An ad which is in good taste is not, however, necessarily correctly set from an advertising standpoint. Those things which are important, as the names and prices of goods, should easily catch the attention of those who merely glance at the ad.

It would hardly be profitable to devote much time in going into details of typographical composition in an article intended to be read by the merchant himself, and not by his advertising man. For the merchant who has not the benefit of some little technical knowledge of typography probably the best plan to insure good display would be to select from some out of town newspaper an ad set in a distinctive and easily read style and to give instructions to have all ads set as nearly as possible in that manner. A uniform style by the way, to be varied only as the size and shape of the ads may necessitate, is good policy. Your ad should be known by all regular readers of the newspaper in which it appears at a glance. Thus whether the ad is read or not and even without the necessity of reading your name, your store is suggested.

Your name should be particularly prominent in all your ads. The best plan is to have a series of cuts made by way of signature, suitable to all sizes of space used. For this purpose a very plain letter is best. The use of script letters, so much in favor for this purpose is, to my mind, a mistake, because of loss of legibility. A very neatly drawn letter somewhat on the order of type and without frills, is to be preferred.

In a large city, if your store is not among the best known, it is a good idea to supplement your street number by reference to the cross street between which you are, or to say "opposite The Public Library," or in some other way render your location more easy to identify than by mere number. A very large percentage of people have little idea as to how the numbers of the streets in their cities run, and are put to the necessity of either making inquiries or running the risk of getting off the car several blocks from your store.

All headings should stand out. To effect this it is not necessary to





employ either very large or very black faced type, thus to overshadow the rest of your ad to its great advantage. Attention is neither caught nor held by bigness and blackness so well as by symmetry and neatness. A neatly displayed ad with sufficient white space to balance the type will gain more readers because of its inviting appearance than will the ad of the man who employs types that shriek their message. The proprietors of a large department store bearing their name, in Chicago, are second to no retail advertisers in the world in the effectiveness of their display. Upon the theory that the eye is more accustomed to reading lower case (as letters that are not capitals are called) they employ capital letters for their heading only as they would be used in the body of text, as for instance for the beginning of sentences and for proper names. This theory seems rather a small matter, and yet there is a good deal of merit in it as the reader may ascertain by test, and in advertising taking notice of small matters pays.

The sizes of type are measured by "points," of which there are 72 to the inch. Thus 10 point type is 10-72 of an inch. For the convenience of ad writers there are tables published giving the number of average words that will when set in the different sizes of type go into the square measurement of various sizes of space beginning with a square inch. Thus the copy writer may avoid overcrowding his space to an extent which will prevent the compositor from properly displaying the ad.

Checking Results. Accompanying this article is a set of three forms for keeping a record of the results of newspaper advertising. They are prepared with special reference to the requirements of those merchants for whom these articles are written. In part they are adaptations of systems in use in two widely known stores and, with additions to or omissions from them, the reader should be able to work out a system to suit his needs.

Form 1 is made out by the buyer for a department which for convenience is designated by a section number. He lists all the articles to which he wishes to call special attention, giving the quantity on hand, the cost, the regular selling price and the price which he wants advertised. The size of space wanted and date of insertion are noted at the top. This form is for the guidance of the advertising man, and in the middle of it, under "remarks," are such descriptions and suggestions as the buyer thinks necessary. A buyer with a touch advertising instinct will sometimes practically write the ad for his department on this form.

Having the cost, the regular price and the advertised price before him, the advertising manager quickly sees how important the ad is and decides upon the size of the space to be occupied. He gives greater or less prominence to the parts of that section of his advertisement as the nature of the articles listed and their prices suggest. As a general rule the request for space is greater than the demands of other departments will permit, and the advertising man is compelled to cut the allotment.

Frequently this cutting of space results in temporary discord, and sometimes in a good deal of jealousy, until the buyer is shown by the record of past results, ever at the advertising manager's right hand, that he has been given as much space as his department will stand.

When the advertisement for the entire store has been set in type, proofs are sent to the buyers of the various departments represented. The clerks in those sections are then required to take notice of all the articles mentioned and to keep track (with the assistance of a special form in the backs of their sales books, or in some other convenient way) not

SECTION . DATE OF INSERTION . 1907

SIZE OF SPACE

| ARTICLES | REMARKS | QUANTITY | COST | REG PRICE | ADV PRICE |
|---|---|---|---|---|---|
| | | | | | |

FORM 1.

only of all sales made of the advertised goods, but also of all inquiries for them. The firm of Marshall Field & Company, of Chicago, keep a record of all inquiries and sales for a period of one week after the advertisement has appeared. Of course, the object in noting inquiries, is that investigation may be made to ascertain the reason for any exceptional disproportion between inquiries and sales. This recording of inquiries is a feature of some considerable value in a large store, where of course the ad man cannot keep in close touch with the customers otherwise.

At the end of the week the buyer sends in his report to the advertising department on Form 2, with the total amount of all returns or credits deducted from the sales. In the space under "remarks" various notations are made for the information of the advertising department, as for instance: "20 per cent of sales of articles not specifically mentioned is to be credited to advertising.

In the meantime the advertising department has entered on the loose leaf Form 3, the state of the weather for the day on which the advertisement appeared, as the weather of course has a great deal to do with the success or failure of the advertisement. Then, opposite their section numbers, the total calls for the various departments taken from Form 2 are entered in column two of Form 3. In column three are entered the sales as shown in Form 2 after the deduction of credits. In column four is entered the cost of the space for every section and the morning and evening paper spaces are kept separate. In column five is noted the percentage of the cost of the space to the net sales.





Then comes a comparison section by section with the results for the corresponding day of the year previous, and the weather for the first day of the record of the last year is included. Opposite the sections are entered such comments as are thought likely to be of value in the future.

SECTION 1907

| DAYS | CALLS FOR ADV. | SALES | CREDITS | REMARKS |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

FORM 2.

The small retailer may find in these forms suggestions of value to him in planning a system in keeping with his needs. For instance, the man who writes and handles his own advertising might by combining on one sheet Forms 1 and 3 have at the end of the year a valuable record at little expense of time.

Now as to the writing of the ad.

The novice in the preparation of advertising copy is as a general rule possessed of an idea that the one great thing is to be strikingly original, and that to attract attention is to achieve success. As a matter of fact a very little experience will demonstrate that mere originality is of itself of small value. "A plain tale plainly told" will carry conviction where gymnastic performances with words, types, rules, and cuts creats an impression of insincerity only. Exaggeration beyond legitimate bounds does not pay in retail advertising, and an ad so dressed that its very appearance suggests exaggeration is an extravagant salesman whose expense is likely to be greater than the margin of profit will allow. The mere fact that a method of advertising is much talked of and making a name widely known is no proof that it is profitable. Crazy men are the most original of all men and are reasonably sure to attract attention in almost any company, but their conduct does not beget confidence. Just so with advertising that is "queer," and confidence must precede sales.

To make it fit the store in style and method is the first consideration in writing advertising copy. The store carrying high-grade goods should make its advertising correspond as to both copy and typography. The black smudge effect brought about by heavy borders and extremely bold face type (which frequently proclaim theretofore unheard of bargains in auction sale language) has no place in the advertising of such a store. Such things, however, seem to be effective in the case of stores dealing

in job lots or selling cheap goods on the instalment plan. Your store must be known primarily as handling a certain quality of goods, high, medium or low, and while you may successfully combine all three you must to some extent subordinate in your advertising either the high or the low.

ADVERTISING RECORD 1907

WEATHER

| SEC. | CALLS FOR ADV. | SALES | COST OF SPACE | | PER CENT COST OF SPACE | WEATHER IN 1906 | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | | | A.M. | P.M. | | GAIN | LOSS | |
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |

FORM 3.

In connection with the idea of fitting the ad to the store bear this suggestion in mind: The small store, or the large store handling, say, only two or three lines, may make profitable use of "heart to heart stuff," as it is called, that would be ridiculous in the ad of a department store. The proprietor whose business is of such a nature that he may become intimately acquainted with every piece of merchandise carried, may talk in his ads almost as he would talk to an inquiring customer. He may bring his personality to the fore and so long as human nature is what it has been since the beginning of history the element of personality will aid sales.

Bearing in mind that servile imitation in advertising is seldom successful, you may by the study of newspapers from other cities than your own, obtain many valuable ideas to assist you in writing ads. The merchant who is ambitious to have his advertising stand out from among that of all the other users of small or medium size space, should subscribe to several outside papers. I should suggest two Philadelphia and two Chicago papers and perhaps a New York paper or two. If your study of the advertising of others, however, does not lead to more than mere copying of it, you had best not waste your time and money.

For years one of the large clothing stores in Chicago has been using just the sort of illustration and copy here mentioned. The illustrations are always unique and always bear a little touch of humor, but the copy gets right down to business—short, sharp, and straight to the point. The illustration is changed with every insertion, but it always possesses certain characteristics that give it almost the value of a trade-mark.

When a Chicagoan opens his morning paper and his eye hits the cut he does not have to read the type to know whose ad he is looking at. However, I should not recommend the use of similar cuts to any store in





search of ideas. While they probably serve their purpose well because of the long-standing reputation of the store using them and the long time they have been employed, a store about to adopt a style will very likely benefit by a decision to absolutely avoid all humor, so far at least as illustrations are concerned. As a general rule only such cuts as illustrate the articles advertised should be used.—(J. W. Egan.)

LETTERING SIGNS. Lettering of signs for retail stores is not so very difficult if you possess the right kind of devices to work with. If you sit down at the desk or bench and begin to letter off hand, you will strike some difficult problems in alignment, proportion and effect. You will produce some irregular letters and off-sized presentations. You may do a little pencil or chalk work at first, for lining up the letters in form, but this will not always effect a remedy. You may do some transparency work and imitate staid letters, but this makes you a copyist. Therefore, in order to help out the novice in the construction of simple sign cards for the retail store, we have executed the accompanying sketches for explanation of how we do it.

First of all, you need some equipments. To undertake to produce even letters on an uneven surface results in a poor job. Get your platen ready. This may be a wood base or it may be a desk top ready formed. It may be the top of a glass show case or an empty dry goods box. Put a thickness of bristol board on the surface and place your drawing card on that. Proceed to do some drafting. Working it out on the mechanical scheme, so-called, you can utilize a combination outfit of the character presented in Fig. 1. This device can be made by you, or you can place your order for the contrivance at the nearest woodworkers or dealers in artists' materials. It consists of the base piece b, to which is pivoted the angle piece c. The latter may be adjusted at any angle desired for the planning of letters like "A," "V," etc. The brass half circle a, is connected with thumb screws and slotted for the same, for purposes of setting the angle. You will be surprised at the wide variety of shapes you can describe with this device. You can get it marked off with checking and measuring lines. The tri-edge shown in the upper right corner of the cut, at e, is another handy device made of thin hardwood, which may be employed in the describing of defined angles for the letters of the tapered class.

In Fig. 3 we present a sketching of the type of drawing instrument which you will find exceedingly handy for defining lines straight up and down on the cardboard. You get your base line first for the bottoms of the letters, by the use of the long ruler g. Then, using this as the base rule, you apply the common form of T-square f for the perpendicular lines of the letters as shown in siding the letter "T." You will find it very easy to slide the instrument along the base piece, and prescribe the lines for the different letters.

Of course there are letters of the "rough" sort, on which there are no definitely described lines, as shown in Fig. 4. It is a good plan to be familiar with a little off-hand work for the execution of letters of this class. However, the general plan of these letters is the same, regardless of the lines describing the sides and upper and lower edges. Therefore the triangle can be employed to good advantage in the manner shown at h. This instrument can be used with considerable freedom in defining base lines, providing that a base ruler, like g, Fig. 3, is utilized in connection therewith.

The first proposition, of course, is to get the hair-lines made on the cardboard or wood surfacing on which you are doing the lettering. This may be followed up with the filling in. The bold face letters take well, and show up the effect to good advantage. But there are many reasons why the fine, delicate lines of the plain line letter is more suitable. Some of the lettered signs are left complete with the execution of the hair-lines. In other cases the letters are filled in solid black or other color. Jet black is always considered the best, unless the man happens to be an expert, in





which case he can work out some enlivening and beautiful designs in tints.

If you run into the tinted letters, however, you will soon take up the floral effects. Then will come the roses and posies, and in time your work will be in demand. But this is too much of a jump. Months of working on plain, business lettered card must come first.

And by the way, even before you go very far on the plain work, you should make or have made a platen or board of the character shown in Fig. 5. Supposing that there is a solid or unmovable base board as seen in the cut. This base board may be the table or what not. The project is to get a tablet which may be tilted to the convenient position for the artist. The front of the secondary board, or tablet, may rest upon the base board as shown. A very simple way to elevate the drawing tablet to the right position consists in putting two wood pins through the upper corners as shown. These pins can bind tight enough to support the tablet at any elevation desired. Then to the tablet you thumb-tack your sketching paper, oilcloth or cardboard, and you are ready for business. You can get one of these boards made for a dollar or two at a carpenter shop. Or, if you have a few tools, you can knock down a dry goods box in the basement of your store and with plane and hammer make the drawing tablet yourself.,

Of course you will go to the dealers in artists' materials and get a pair of dividers like that in Fig. 8, as you cannot do without the same. Price 75 cents. A lining or ruling pen at 50 cents is also wanted. Don't bother with cake ink like that in Fig. 7 because it is too much bother to work it into liquid form in these hurry-up days. Get a 20-cent bottle of India ink ready made. You will lose nothing if you invest a dollar or two in a partitioned box of the plan shown in Fig. 6, in which to store an ink bottle and some of the smaller tools. You cannot very well have a box for the long base rulers or the big T-squares, but a small-sized apartmented box for the smaller devices will serve as a means for keeping things together where you can find them.—(G. Rice.)

### THE REQUIREMENTS OF A SUCCESSFUL MANAGER—ADVERTISING.

Let us consider for a brief space the requirements for a successful advertising manager and we can argue from these the machinery that must surround him in the creation of a definite impression on the possible customers of his house.

FIRST. The successful advertising manager must know how to put into plain, forcible English and business argument that a salesman would use in endeavoring to sell the goods. He must have the "pat" word at the right time to arrest and to hold the public attention. For this purpose he must keep in constant touch with what is being said and done to advertise a like commodity. He must, therefore, have a system that will keep track of the advertising that is being done by his successful com-

petitors, of the odds and ends of information that effect or illustrate the selling arguments he may wish to make. He must have this information so readily accessible that it is virtually at his finger tips, for one of the great essentials of successful advertising management is that an advertising manager shall be able at all hours of his day to place himself in instant readiness to take advantage of a public calamity or a public happening of unusual importance, or some stroke of policy of his house that may result in an instant requirement for advertising matter.

Second. The advertising manager must know how to plan, arrange, and execute his advertising matter in such a fashion that it will prove attractive, yet cost a reasonable amount.

(a) It is safe to say that the average advertising manager knows little or nothing about types. He may know when a thing "looks nice" to him, but he does not know why it "looks nice," or why something else does not "look nice." What is the result of this condition? Such an advertising manager inevitably has to pay more for printing matter he may use than the manager who, being thoroughly conversant with the technique of printing, is able to give the printer a definite order that does not require any re-setting or frequent change of composition. It is, therefore, necessary for the advertising manager to acquaint himself on the artistic possibilities of type faces, to study the new type faces that come out every month or oftener, to experiment at a reasonable charge in the acquiring of a typographical personality for his house, and to obtain the most artistic results from the standpoint of his possible customer. This last qualification is required to an exceptional degree. It has become the acknowledged rule that with the small wage earner of limited education and lack of refinement, large displayed figures and prices work to a great deal better advantage than small ones. It does not require the same refinement to sell goods to a street cleaner or a street cleaner's wife as it does to sell goods to a college man or a college man's wife.

Violent contrasts, such as big, black outlines and light body types are not as refined as black headlines and black body type in harmonious arrangement. Light headlines and light body type also harmonize, and their various gradations between the extremes of black letter and hair-line letters result in pleasing combinations. The advertising manager versed in the technique of the art can diagnose from the appearance of an advertisement exactly the kind of people it will appeal to. This has been proved in hundreds of cases. Therefore, the advertising manager must know the technical requirements of the practice of his profession. He must thoroughly acquaint himself with the possibilities of its tools and its medium.

(b) In addition to the kinds of type and its possibilities, he must be thorougthly conversant with the different papers and their printing qualities. He must know their approximate prices in the open market.





He must know how long it takes a compositor to set a required job. He must know what it costs to produce printing, in order that he may know whether a good printer is overcharging him or not, because the capable advertising manager understands perfectly well that printing is not a matter of competition. Printing to him is simply a vehicle,—a means to an end, and the advertising manager makes a great mistake who buys the cheapest vehicle he can obtain in order to obtain the maximum of results. There would be just as much sense in a man who desired to get to a certain place in a certain time, buying the cheapest horse he could buy, and the cheapest second-hand wagon he could lay his hands on. He might get there, and he might get there in the time specified, but the chances of his doing so would be in proportion to the amount he paid.

It is true there is no standard of price in the printing business. It is equally true, however, that the successful advertising manager can know within a per cent the justness of a price quoted. He must not, therefore, judge by a comparison of prices, but he must judge by a comparison of product, and the cost that it will stand the printer. In these days of well organized unions in the printing trade the cost is nearly standardized.

So much for the printing.

(c) In addition to the foregoing, the successful advertising manager must know the prices of engraving and the possibilities of engraving and papers. He must know the kind of paper that will take the particular kind of cuts he wants to use in order to get the greatest effective printing quality out of them. He must know, if he had decided upon the quality of paper, what kind of cuts will print to the best advantage on that paper. In fact, he has to acquaint himself with the possibilities of wood, zinc, and half-tone engravings. He must even go a step farther, and acquaint himself with the theory of quality values. He must understand the rule of proportion in the arrangement of pages in his booklets. He must understand something about art work and media, as he will often have to have drawings made for the purpose of making cuts. He must understand the possibilities of the different media in the making of these designs. In other words, he will have to understand what kind of drawings will be reproduced by the zinc process, what kind can be produced by the wood engraving, and the same rule would apply to the half-tones, three-color work, lithography, etc., and in the end he must be conversant with the ruling market prices on work of all these descriptions.

For him to attempt to shirk any portion of this program of education and knowledge is for him to deliberately weaken the grasp that he may have upon his work. These requirements exact a constant and honest application to the details of their respective progress. Engraving is constantly progressing, and newer, better, and more satisfactory results are constantly being obtained. Papers are improving. Artistic printers

are constantly discovering new possibilities in combination of inks, types, borders, papers, bindings, etc. The type founders are daily giving greater attention to artistic types and conventionalized ornamentation. In no branch of artistic work is there greater progress than in advertising art, because in no branch of art are the rewards so instant and so generous as they are in advertising to those men who hit the popular fancy.

From the foregoing it may be readily understood how great are the requirements of the advertising manager, and in order to keep track of all the multiplicity of details that are the natural outgrowth of daily progress in each of these different lines of technical education, a system must be devised that shall automatically care for each part.

The Advertising Department. Stepping from the matter of technical detail, the successful advertising manager is confronted with the requirement of looking after his department, the work and tools of which are constantly growing. (a) For instance, the cuts he uses in his advertisements grow into tremendous proportion and bulk in the course of a year. The small retailer may do daily advertising. He may have a new cut in every day's ad. At the end of the year he has 312 cuts, and if he does Sunday advertising, 365 cuts. He must devise some system by which these may be readily identified in case he chooses to use any of them a second time.

It is the best practice to print from electrotypes. This requires that a system be used that shall identify originals and electrotypes, and have them easy of access.

(b) Drawings must be filed away in such fashion as to be readily accessible. A drawing from which a column cut may be used today, may require a three-column cut two weeks from now. The drawing will have to be found in order to make the new cut, with the natural result that the time spent in looking over the countless number of drawings in order to find the particular one is so much time wasted, whereas the proper system would require two minutes to make the entry, one minute to find the card, and two minutes to find the drawing.

(c) The advertising manager who handles only local newspaper business must have a method of checking results, even if his store be but a small retail store, and he the proprietor, for let me be understood at this juncture, that in treating the organization of an advertising department, I do not necessarily mean that it is going to apply only to a store employing a high-salaried specialist. The principles laid down for a system are the same whether they be applied to a store employing 5,000 employes or one employing but five. Of course, the systems will be different, according to the necessities of the different size of the business. Where the sales are made by a few people, it is comparatively easy to keep track of the manner in which these sales are handled, and to whom they go. In the larger establishments, the advertising manager will be called upon to work a system in conjunction with the





clerks and heads of departments, in order to make it easy of operation. This system will have to be digested into the system records in his own office in a manner which will be explained later.

(d) In the case of handling weekly, monthly, or yearly newspaper advertising, the advertising manager will be called upon to make a most concise system to determine the efficiency of the plans and methods of handling the appropriation. The mail order department will have to work together with him in establishing a system that shall give a complete return on the advertising that he may be doing. He must have complete data on the subject of the rates in different publications that shall afford complete data relative to the fluctuating prices that may come under his eye, and the attitudes that different agencies assume towards different publications should be recorded for the purpose of comparison and valuation.

There is a well defined idea among those who have never handled large or effective advertising campaigns that advertising men are born and not made. Upon closer analysis this phrase in its practical application is generally found to mean entirely different things to different men. It is not necessary in a paper devoted to the question of advertising systems to dwell to any great extent upon this fallacy, except to mention one thing (the natural outgrowth of it) that the advertising man must be an expert mechanic in order to intelligently advertise heaters, or must be able to run a locomotive in order to advertise a railroad, or must be able to make cotton cloth in order to advertise sheetings or calico, or that he must be able to make a hat in order to tell people what a good hat it is.

Lest the writer be accused of talking at random, it might be well to state that it is not his intention to controvert the accepted fact that an advertisement devoted to a technical subject and addressed to a technical man must be technically correct. It is equally true, however, that very few technical men understand either the technique or practice of advertising. The natural consequence has been that the advertising of technical products in technical journals to a technical constituency has been mainly noted for its lack of information and its general weakness, showing that not only do technical men not know how to advertise, but that a great many of them do not know how to write on the subject with which they are supposed to be familiar. Take any technical trade journal of today, and this contention will be amply proved.

The advertising manager, however, who is thoroughly proficient in the practice of his art is much like the trained newspaper writer who has that sixth sense, the ability to grasp the salient features of a proposition and to embody them in conservative, yet interesting, stories. To such an extent is this true, and to such an extent is it generally recognized, that some of the most experienced engineers and technical men have looked to the trained writer in the form of a secretary to set down what

they thought themselves, and many of the articles appearing in magazines throughout the country signed by technical correspondents have been written by men who had no technical training whatever in the particular subject treated, but have furnished the technical man that ability to translate technical ideas into clean, good English.

The advertising manager, therefore, must realize to a degree the necessity of having facts and figures as a foundation upon which to build the superstructure of productive advertising.

He must have this data and information at hand when it is necessary. —(E. St. Elmo Lewis.)

### (137) ACCOUNTING PROBLEMS, SOLUTION OF.

Prepared specially by Gustave Jacobsson, B. A. Member of the American Association of Public Accountants. NEW YORK C. P. A. EXAMINATION —JANUARY, 1900. John Doe expends $100,000 in the erection of a business block; at the end of the year he finds that the rents of the stores in the block have amounted to $7,500 and of the offices, $3,750. The expenses of the year have been janitor, and caretaker, $750; repairs and alterations to suit tenants, $500; water and gas, $400; taxes, .01975 on a valuation of $87,000; various incidentals, $150. Make up a statement showing the result of the year's enterprise and per cent of profit on investment, after charging five per cent interest on the capital invested and $2,500 for depreciation.

SOLUTION.

STATEMENT OF INCOME AND EXPENDITURES.

| | | |
|---|---|---|
| **Income.** | | |
| Property situated at ——, value | $100,000.00 | |
| Rents of stores | $7,500 | |
| Rents of offices | 3,750 | |
| | | $11,250.00 |
| **Expenditures.** | | |
| Repairs and alterations | $ 500.00 | |
| Water and gas | 400.00 | |
| Taxes | 1,718.25 | |
| Depreciation, 2½ per cent on property | 2,500.00 | |
| | | 5,118.25 |
| Gross profits | | $ 6,131.75 |
| Janitor's services | $ 750.00 | |
| Incidental expenses | 150.00 | |
| | | 900.00 |
| Net profits | | $ 5,231.75 |
| Allocation of Net Profits— | | |
| Interest on capital, 5 per cent | | 5,000.00 |
| Balance, unappropriated, carried forward | | $ 231.75 |

BALANCE SHEET.

| | | |
|---|---|---|
| Property | $100,000.00 | |
| Less 2½ per cent depreciation | 2,500.00 | |
| | | $ 97,500.00 |
| Cash | | 7,731.75 |
| | | $105,231.75 |
| Capital Account | $100,000.00 | |
| Interest, 5 per cent | 5,000.00 | |
| Profits | 231.75 | |
| | | $105,231.75 |

CASH ACCOUNT.

| | | |
|---|---|---|
| Store rents | $ 7,500.00 | |
| Office rents | 3,750.00 | |
| | | $ 11,250.00 |
| Janitor's services | $ 750.00 | |
| Repairs and alterations | 500.00 | |
| Water and gas | 400.00 | |
| Taxes | 1,718.25 | |
| Expenses | 150.00 | |
| Balance | 7,731.75 | |
| | | $11,250.00 |

Per cent profits on investment = .0023175.

NEW YORK C. P. A. EXAMINATION, DECEMBER, 1897. A company having assets consisting of real estate, $50,000; plant and machinery, $75,000; book debts, $36,000; stock on hand, $42,000, and liabilities consisting of bills payable, $16,000, transfers its entire business January 1, 1896, to a joint stock company for $75,000 in bonds, $75,000 in preferred stock and $75,000 in common stock. Make the necessary opening entries for the above, and show how the ledger accounts would stand.

SOLUTION.

1.

| | | |
|---|---|---|
| Assets | | $241,000 |
| Accounts receivable | $36,000 | |
| Stock on hand | 42,000 | |
| Machinery | 75,000 | |
| Real estate | 50,000 | |
| Good will | 38,000 | |
| | | $241,000 |
| To vendors | $225,000 | |
| To bills payable | 16,000 | |
| | | $241,000 |

Assets transferred per contract.

2.

| | | |
|---|---|---|
| Vendors | | $225,000 |
| Payment of assets. | | |
| To bonds | $ 75,000 | |
| To preferred stock | 75,000 | |
| To common stock | 75,000 | |
| | | $225,000 |

ACCOUNTS RECEIVABLE.

| | |
|---|---|
| To vendors and bills payable | $36,000 |

MERCHANDISE INVENTORY ACCOUNT.

To vendors and bills payable ..... $42,000

MACHINERY.

To vendors and bills payable ..... $75,000

REAL ESTATE.

To vendors and bills payable ..... $50,000

GOOD WILL.

To vendors and bills payable ..... $38,000

VENDORS.

To stocks and bonds..... $225,000 By sundry assets ..... $225,000

BILLS PAYABLE.

By sundry assets ..... $16,000

BONDS.

By vendors ..... $75,000

PREFERRED STOCK.

By vendors ..... $75,000

COMMON STOCK.

By vendors ..... $75,000

NEW YORK C. P. A. EXAMINATION, JUNE, 1897. A of New York, B of Chicago, and C of San Francisco enter into an agreement to buy and sell for joint account, each to receive one per cent on his purchases and three per cent on his sales, as commission, and to share equally in the net profits, usual interest at six per cent (360 days to the year) to accrue on all values after due date.

March 1. A buys goods amounting to $3,989.50 and consigns same to B, who renders account sales for $4,656, net proceeds due April 15.

March 15. B buys goods amounting to $5,050 and sells same, rendering account sales to A and C, net proceeds $4,365, due May 20.

April 1. C buys goods amounting to $6,060 and consigns half to each, A and B. A renders account sales for $3,783, net proceeds due July 1, to each, B and C. B renders account sales for $2,813, net proceeds due June 10, to each, A and C.

Above purchases include one per cent commission and the net proceeds are the gross amount of sales, less the three per cent commission, selling charges, etc.

Frame the necessary journal entries and prepare the accounts of A, B and C, as these accounts would appear on the ledger of A, B or C.

SOLUTION.

March 1.

JOURNAL ENTRIES.

| | | |
|---|---|---|
| Merchandise Joint Consignment Account | | $3,989.50 |
| To A, purchase | $3,950.00 | |
| Commission | 39.50 | |
| | | $3,989.50 |
| B, sales | $4,300.00 | |
| Less commission | 144.00 | |
| | | $4,656.00 |





| | | |
|---|---|---|
| To Merchandise Joint Consignment Account | | $4,656.00 |
| March 15. | | |
| Merchandise Joint Consignment Account | | $5,050.00 |
| To B, purchase | $5,000.00 | |
| Commission | 50.00 | |
| | | $5,050.00 |
| B, sales | $4,500.00 | |
| Less commission | 135.00 | |
| | | $4,635.00 |
| To Merchandise Joint Consignment Account | | $4,635.00 |
| April 1. | | |
| Merchandise Joint Consignment Account | | $6,060.00 |
| To C, purchase | $6,000.00 | |
| Commission | 60.00 | |
| | | $6,060.00 |
| A, sales | $3,900.00 | |
| Less commission | 117.00 | |
| | | $3,783.00 |
| To Merchandise Joint Consignment Account | | $3,783.00 |
| B, sales | $2,900.00 | |
| Less commission | 87.00 | |
| | | $2,813.00 |
| To Merchandise Joint Consignment Account | | $2,813.00 |
| July 1. | | |
| B,— | | |
| Proceeds account sales due April 15, $4,656, two and one-half months, 6 per cent | | $58.20 |
| Proceeds accounts sales due May 20, $4,365, one and one-third months, 6 per cent | | 29.10 |
| Proceeds account sales due June 10, $2,813, two-thirds month, 6 per cent | | 9.38 |
| | | $96.68 |
| To interest account | | $96.68 |

MERCHANDISE JOINT CONSIGNMENT ACCOUNT.

| | |
|---|---|
| March 1—A's purchase | $3,950.00 |
| 1 per cent commission | 39.50 |
| March 15—B's purchase | 5,000.00 |
| 1 per cent commission | 50.00 |
| April 1—C's purchase | 6,000.00 |
| 1 per cent commission | 60.00 |
| Profits, to Profit and Loss Account | 517.50 |
| | $15,617.00 |
| March 1—B's account sales to A, due April 15th | $ 4,656.00 |
| 15—B's account sales to A and C, due May 20 | 4,365.00 |
| April 1—A's account sales to B and C, due July 1 | $ 3,783.00 |
| 1—B's account sales to A and C, due June 10 | 2,813.00 |
| | $15,617.00 |

| | | |
|---|---|---|
| Interest Account | | $96.68 |
| To Profit and Loss | | 96.68 |

PROFIT AND LOSS ACCOUNT.

| | |
|---|---|
| A—one-third share | $204.73 |
| B—one-third share | 204.73 |
| C—one-third share | 204.72 |
| | $614.18 |
| Merchandise Joint Consignment Account | $517.50 |
| Interest | 96.68 |
| | $614.18 |

A'S CAPITAL ACCOUNT.

| | |
|---|---|
| Merchandise Joint Consignment Account | $3,950.00 |
| 1 per cent commission | 39.50 |
| Profits, one-third | 204.73 |
| | $4,194.23 |

A'S ACCOUNT SALES.

| | |
|---|---|
| B, sales | $3,900.00 |
| Less commission | 117.00 |
| | $3,783.00 |

B'S CAPITAL ACCOUNT.

| | |
|---|---|
| Merchandise Joint Consignment Account | $5,000.00 |
| 1 per cent commission | 50.00 |
| Profits, one-third | 204.73 |
| | $5,254.73 |

B'S ACCOUNT SALES.

| | |
|---|---|
| A, sales $4,800, less commission $144, due April 15 | $4,656.00 |
| A and C, sales $4,500, less commission $135, due May 20 | 4,365.00 |
| A and C, sales $2,900, lesscommission $87, due June 10 | 2,813.00 |
| Interest | 96.68 |
| | $11,930.68 |

C'S CAPITAL ACCOUNT.

| | |
|---|---|
| Merchandise Joint Consignment Account | $6,000.00 |
| 1 per cent commission | 60.00 |
| Profits, one-third | 204.72 |
| | $6,264.72 |

TRIAL BALANCE.

| | |
|---|---|
| A's account sales | $ 3,783.00 |
| B's account sales | 11,930.68 |
| | $15,713.68 |
| A's capital | $ 4,194.23 |
| B's capital | 5,254.73 |
| C's capital | 6,264.72 |
| | $15,713.68 |





COMMENTS. The interest is an important factor in the problem. I have therefore selected July 1, as a convenient arbitrary date for settlement of the account.

Fairness would seem to suggest that each partner was entitled to credit for interest to July 1, from date of purchase, but the problem is sile on this point.

NEW YORK C. P. A. EXAMIKATION, JANUARY, 1903. The A. B. Banking Co., of New York, borrow £20,000 from C. D. & Co., London, for 60 days at four per cent, money being at six per cent in New York. The rate of exchange is 4.8775, when the loan is made and 4.8825 when it is repaid. If brokerage is 1-32 per cent, cable charges $15, how much is saved or lost by borrowing abroad? (Interest on basis of 360 days to the year.)

SOLUTION.

| | | |
|---|---|---|
| £20,000 at 4.8775 equals | $97,550.00 | |
| Interest, 4 per cent paid on $97,550.00, 60 days equals | | $650.33 |
| Brokerage, 1-32 per cent paid on $97,550.00, equals | | 30.48 |
| Cable charges | | 15.00 |
| Loss on exchange, viz: | | |
| £20,000 at 4.8825 equals | $97,650 | |
| £20,000 at 4.8775 equals | 97,550 | |
| Excess in repayment | | 100.00 |
| Total cost | | $795.81 |
| $97,550 at 6 per cent, paid 60 days | | 975.50 |
| Saved by borrowing in London | | $179.69 |

NEW YORK C. P. A. EXAMINATION, JUNE, 1898. The balance sheet of a joint stock company, January 1, 1897, shows the following state of affairs:

| | |
|---|---|
| Capital Stock | $200,000 |
| Creditors, open accounts | 16,000 |
| Bills payable | 30,000 |
| Profit and loss account | 30,500 |
| | $276,500 |
| Real estate | $ 50,000 |
| Plant and machinery | 85,000 |
| Horses and wagons | 15,000 |
| Patents and good will | 20,500 |
| Inventory | 49,000 |
| Accounts receivable | 35,000 |
| Cash in bank | 22,000 |
| | $276,500 |

A year later, January 1, 1898, after an audit of the books and accounts, the balance sheet stands as follows:

| | | |
|---|---|---|
| Capital stock | | $200,000 |
| Creditors, open account | | 17,000 |
| Mortgage | | 25,000 |
| Profit and loss account: | | |
| Balance last year | $30,500 | |
| Profit this year | 23,400 | 53,900 |
| | | $295,900 |
| Real estate | | $ 52,000 |
| Plant and machinery: | | |
| Balance January 1, 1897 | $85,000 | |
| Less depreciation | 8,500 | 76,500 |
| Horses and wagons: | | |
| Balance January 1, 1897 | $15,000 | |
| Less depreciation | 2,250 | 12,750 |
| Patents and good will | | 20,500 |
| Inventory | | 65,000 |
| Accounts receivable | | 33,000 |
| Agency investments | | 15,000 |
| Cash in bank | | 21,150 |
| | | $295,900 |

From the foregoing it will be seen that for the year a net profit of $23,400 has been earned, while the accounts receivable are smaller, and the cash balance on hand is less than at the beginning of the year, though no dividend has in the meantime been paid. Prepare account showing what has become of the profits earned.

SOLUTION.

COMPARATIVE ANALYSIS OF BALANCE SHEETS FOR THE YEARS 1897 AND 1898.

| Assets. | 1897. | 1898. | Increase. | Decrease. |
|---|---|---|---|---|
| Real estate | $50,000 | $52,000 | $ 2,000 | $..... |
| Plant and machinery | 85,000 | 76,500 | ..... | 8,500 |
| Horses and wagons | 15,000 | 12,750 | ..... | 2,250 |
| Patents and good will | 20,500 | 20,500 | ..... | ..... |
| Inventories | 49,000 | 65,000 | 16,000 | ..... |
| Accounts receivable | 35,000 | 33,000 | ..... | 2,000 |
| Cash | 22,000 | 21,150 | ..... | 850 |
| Agency investments | ..... | 15,000 | 15,000 | ..... |
| | | | $33,000 | $13,600 |
| Net increase of assets | | | | 19,400 |
| | | | $33,000 | $33,000 |





| Liabilities. | | | | |
|---|---|---|---|---|
| Creditors | $16,000 | $17,000 | $ 1,000 | $..... |
| Bills payable | 30,000 | ..... | ..... | 30,000 |
| Mortgage | ..... | 25,000 | 25,000 | ..... |
| | | | $26,000 | $30,000 |
| Net decrease of liabilities | | | 4,000 | |
| | | | $30,000 | $30,000 |
| Increase of assets | | | | 19,400 |
| Decrease of liabilities | | | | 4,000 |
| Net gains | | | | $23,400 |

The analytical account may also be prepared in the following manner:

TABULATION OF CHANGES IN THE BALANCE SHEETS, 1897-1898.

| | |
|---|---|
| Purposes of Expenditures— | |
| Increase in real estate | $ 2,000 |
| Increase in inventories | 16,000 |
| Increase in investments | 15,000 |
| Decrease in bills payable | 30,000 |
| | $63,000 |
| Sources of Funds— | |
| Decrease in plants and machinery | $ 8,500 |
| Decrease in horses and wagons | 2,250 |
| Decrease in accounts receivable | 2,000 |
| Decrease in cash | 850 |
| Increase in creditors | 1,000 |
| Increase in mortgage | 25,000 |
| Increase in profits | 23,400 |
| | $63,000 |

NEW YORK C. P. A. EXAMINATION, JUNE, 1900. L. H. McDonald and J. C. Smith form a co-partnership Jan. 2, 1899, each investing $7,500. March 1, Smith makes an additional investment of $2,400 and McDonald withdraws $1,200. July 1 McDonald invests $2,500 and Smith withdraws $2,500. The profits for the year are $4,800.

Show each partner's average investment and share of profits, the profits being divided in proportion to the capital invested and the time it is employed.

SOLUTION NO. 1.

L. H. MCDONALD.

| | |
|---|---|
| $7,500 for 12 mos. = | $90,000 |
| 2,500 for 6 mos. = | 15,000 |
| | $105,000 |

Less—
$1,200 for 10 mos. = $12,000

$93,000 ÷ 12 = $7,750
J. C. SMITH.

$7,500 for 12 mos. = $90,000
2,400 for 10 mos. = 24,000

$114,000

Less—
$2,500 for 6 mos. = 15,000

$99,000 ÷ 12 = $8,250

McDonald's average investment ..... $ 7,750
Smith's average investment ..... 8,250

Total ..... $16,000

$\frac{4800 \times 100}{16000} = 30$ per cent.

Hence, $7,750 x 30% = $2,325 = McDonald's profits
8,250 x 30% = 2,475 = Smith's profits

$4,800

SOLUTION NO. 2.

Gains divided according to average capital:

McDonald ..... $\frac{7750}{16000} \times \frac{4800}{1} = 2325$

Smith ..... $\frac{8250}{16000} \times \frac{4800}{1} = 2475$

4800

SOLUTION NO. 3.

By proportion:

93
99
—
192

McDonald ..... $\frac{93}{192} \times \frac{4800}{1} = 2325$

Smith ..... $\frac{99}{192} \times \frac{4800}{1} = 2475$

4800

SOLUTION NO. 4.

By ratios:

7750 x 4=31
8250 x 4=33
—
64





McDonald ..... $\frac{31}{64} \times \frac{4800}{1} = 2325$

Smith ..... $\frac{33}{64} \times \frac{4800}{1} = 2475$

4800

NEW YORK C. P. A. EXAMINATION, JUNE, 1903. Bowling, Green & Co., of New York, consign goods to A. & B. in Hanava, Cuba, rendering with each shipment a pro forma invoice in which the goods are charged at prices in excess of the cost, the cost of freight, insurance, etc., being added. Accounts sales are received from time to time, the net proceeds being remitted by drafts.

Show how the following transactions would appear in Bowling, Green & Co.'s ledger:

(a) Shipment of goods Jan. 1, 1902, and invoice rendered to A. & B. of Havana, for $9,850, as follows:

| | |
|---|---|
| Merchandise | $9,000 |
| Freight | 700 |
| Insurance | 150 |
| Total | $9,850 |

The cost of these goods was $8,700.

(b) Account sales received March 15, 1902, for part of the consignment, showed gross proceeds $5,400, less dock and other expenses, including commission $150. This account was accompanied by a 60-day draft for $5,250.

(c) Account sales received June 16, 1902, for balance of the consignment, showed gross proceeds, $5,660, less dock and other expenses, including commission, $175, and was accompanied by a 90-day draft for $5,485.

SOLUTION.

CONSIGNMENT ACCOUNT.

A. & B., HAVANA, CUBA.

| 1902. | | 1902. | |
|---|---|---|---|
| | | Nov. 15. | |
| Jan. 1. | | A. & B., Sales | $5,400 |
| Merchandise | $8,700 | June 16. | |
| Freight | 700 | A. & B., Sales | 5,660 |
| Insurance | 150 | | |
| Nov. 15. | | | |
| Commission | 150 | | |
| June 16. | | | |
| Commission | 175 | | |
| Profits | 1,185 | | |
| | $11,060 | | $11,060 |

CONSIGNMENT SALES ACCOUNT.

| 1902. | | 1902. | |
|---|---|---|---|
| July. | | March 15. | |
| A. & B., HAVANA, CUBA. | | Commission | $ 150 |
| 1902. | | Bills receivable | 5,250 |
| March 15. | | June 16. | |
| Consignment account, sales | $5,400 | Commission | 175 |
| June 16. | | Bills receivable | 5,485 |
| Consignment sales | 5,660 | | |
| | $11,060 | | $11,060 |

BILLS RECEIVABLE.

| 1902. | | 1902. | |
|---|---|---|---|
| March 15. | | Jan. 1. | |
| A. & B. | $5,250 | Consignment account | $700 |
| June 16. | | Consignment account | 150 |
| A. & B. | 5,485 | | |
| | $10,735 | | $850 |

TRIAL BALANCE.

| | | | |
|---|---|---|---|
| Bills receivable | $10,735 | Consignment sales account | $8,700 |
| | | Cash | 850 |
| | $10,735 | Profits | 1,185 |
| | | | $10,735 |

The principle involved is simply this: increases in assets, and decreases in liabilities=decreases in assets and increases in liabilities.

ILLINOIS C. P. A. EXAMINATION, NOVEMBER, 1903. A gas company presents a statement at the close of its fiscal year of cost of putting gas in holders and whole cost of gas per thousand cubic feet. Their statement is given in detail and is made up of the following:

ITEMS OF COST.

| | | |
|---|---|---|
| Cost of gas in holders | | $28,178.92 |
| Generator fuel | $ 1,063.68 | |
| Gas coal | 13,086.66 | |
| Boiler fuel | 679.51 | |
| Bench fuel | 3,433.72 | |
| Manufacturing labor | 6,838.17 | |
| Manufacturing supplies | 214.13 | |
| Oil | 2,054.57 | |
| Purification labor | 168.72 | |
| Purification supplies | 89.82 | |
| Bench repairs | 29.58 | |
| Gas house machinery repairs | 520.86 | |
| Distribution | | 1,887.39 |
| Distribution labor | 578.57 | |
| Distribution supplies | 60.72 | |
| Street lamp operating | 216.04 | |
| Repairs and renewals of meters | 102.65 | |
| Repairs and renewals of services | 129.80 | |
| Repairs and renewals of mains | 799.61 | |





| | | |
|---|---|---|
| General expense | | 9,267.72 |
| Salaries of officers | 3,300.00 | |
| Accounting department | 3,501.66 | |
| General office sundries | 435.21 | |
| Canvassing | 669.00 | |
| Rentals | 752.67 | |
| Stationery, printing, postage | 454.64 | |
| Legal | 154.54 | |
| Discount on consumers' bills | | 10,693.44 |
| Insurance | | 1,618.89 |
| Taxes | | 1,129.99 |
| Interest | | 2,466.68 |

The company obtained in the process of putting gas in holders certain by-products the whole of which sold for $6,783.26. There was manufactured, i. e., put into the gas holders 50,000,000 cubic feet of gas; the meters registered and there was charged to consumers 46,000,000 cubic feet of gas. The gas remaining in the holders at the beginning and ending of the period being the same in cubic feet.

On the books of the Gas Co. the plant and distributing system is stated in the following accounts:

| | |
|---|---|
| Gas works (including land valued at $25,000) | $250,000.00 |
| Mains | 100,000.00 |
| Services | 31,000.00 |
| Meters | 12,000.00 |
| Tools | 327.00 |
| Furniture and fixtures | 1,850.00 |

In addition to which the company's books show storeroom supplies $9,341 and accounts receivable $12,605.57.

Assuming the correctness of all the charges above, do the items set up in the company's statement represent the elements of cost?

Prepare a detailed cost statement that you would consider correct, giving the cost per thousand cubic feet of gas in the holders, and whole cost of manufacturing gas per thousand cubic feet. Where you consider it necessary, act arbitrarily in building your statement.

SOLUTION.

| | |
|---|---|
| Gas manufactured, cu. ft. | 50,000,000 |
| Gas sold, cu. ft. | 46,000,000 |
| Loss in transmission being 8 per cent of product | 4,000,000 |

COST PER 1,000 CU. FT.

| | Amount. | Manf'd. |
|---|---|---|
| Cost of manufacture | $ 28,179.42 | .563588 |
| Generator fuel | $ 1,063.68 | |
| Gas coal | 13,086.66 | |
| Boiler fuel | 679.51 | |
| Bench fuel | 3,433.72 | |
| Manufacturing labor | 6,838.17 | |

| | | | |
|---|---|---|---|
| Manufacturing supplies | 214.13 | | |
| Oil | 2,054.57 | | |
| Purification labor | 168.72 | | |
| Purification supplies | 89.82 | | |
| Bench repairs | 29.58 | | |
| Gas house machinery repairs | 520.86 | | |
| Cost of distribution | | 1,887.39 | .037748 |
| Distribution labor | 578.57 | | |
| Distribution supplies | 60.72 | | |
| Street lamp operation | 216.04 | | |
| Repairs and renewals— | | | |
| Meters | 102.65 | | |
| Services | 129.80 | | |
| Mains | 799.61 | | |
| | | $30,066.81 | .601336 |
| Cost of administration | | 9,830.89 | .196618 |
| Salaries, officers | $ 3,300.00 | | |
| Accounting department | 3,501.66 | | |
| Office sundries | 435.21 | | |
| Canvassing | 669.00 | | |
| Rentals | 752.67 | | |
| Stationery, printing, etc | 454.64 | | |
| Law expenses | 154.54 | | |
| Bad debts | 378.17 | | |
| 87 written off on $12,605.57 | 185.00 | | |
| Depreciation 10% on fixtures | | | |
| General expenses | | 25,355.75 | .507115 |
| Discounts on consumers' bills | $10,693.44 | | |
| Insurance | 1,618.89 | | |
| Taxes | 1,129.99 | | |
| Interest | 2,466.68 | | |
| | $15,909.00 | | |
| Depreciations— | | | |
| Gas works, $250,000 | | | |
| Less— | | | |
| Value of land, $25,000. | | | |
| 2½ per cent $225,000 | $ 5,625.00 | | |
| Mains, 3 per cent $100,000 | 3,000.00 | | |
| Services, 2 per cent $31,000 | 620.00 | | |
| Meters, 1 per cent $12,000 | 120.00 | | |
| Tools, 25 per cent $327 | 81.75 | | |
| Gross cost | $ 9,446.75 | $65,253.45 | 1.305069 |
| Less residuals | | 6,783.26 | .135665 |
| | | $58,470.19 | 1.169404 |





| | | |
|---|---|---|
| Add for loss in— | | |
| Transmission | 5,084.36 | .101687 |
| Total net cost | $63,554.55 | 1.271091 |
| Cost per 1,000 cu. ft. of gas in holders | .563588 | |

Cost per 1,000 cu. ft. of product

$$\frac{58470.19}{46000} = 1.271091 \quad \text{or} \quad \frac{63554.55}{50000}$$

COMMENTS. Cost in holders, I take it, means "Prime Cost" of gross product. But net cost should be based on product actually reaching the consumer. This I have effected by the item "loss in transmission."

There are two other items not necessary to the problem, but which might be mentioned to show careful consideration of the subject.

1. Amount of gas used in office and at works for which an arbitrary amount could be supposed.

2. Gas paid for in advance by the "slot machines" which gas companies now furnish.

NEW YORK C. P. A. EXAMINATION, JUNE, 1904. Smith and Jones are partners, drawing equal amounts for services, and sharing profits according to capital invested, after allowing five per cent on capital. They require additional capital and arrange to admit the manager to the firm, he to acquire a one-quarter interest in the business. According to the balance sheet Smith has $12,000 and Jones $6,000 invested, and good will is valued at $6,000.

What sum must the manager contribute? How will the partnership accounts appear after payment into the firm of the new capital? How will profits be divided in the future Show accounts in skeleton form.

SOLUTION.

| | | |
|---|---|---|
| Good Will | | $6,000 |
| His ⅔ of Capital Gain to Smith | $4,000 | |
| His ⅓ of Capital Gain to Jones | 2,000 | |

MANAGER'S INTEREST.

| | |
|---|---|
| Smith, capital | $16,000 |
| Jones, capital | 8,000 |

$24,000÷(100—25)=75=32000 equals total capital of new partnership; the manager's share ¼=$8,000, or

$$\frac{\$24,000 \times 25}{75} = \$8,000 = \text{manager's } \tfrac{1}{4} \text{ interest.}$$

| SMITH'S CAPITAL. | | JONES' CAPITAL. | |
|---|---|---|---|
| Investment | $12,000 | Investment | $6,000 |
| ¾ Good Will | 4,000 | ⅓ Good Will | 2,000 |
| | $16,000 | | $8,000 |

| MANAGER'S CAPITAL. | | DIVISION OF PROFITS. | |
|---|---|---|---|
| Cash | $8,000 | Smith | ½ |
| | | Jones | ¼ |
| | | Manager | ¼ |

Illinois C. P. A. Examination, May, 1904. The general ledger of a county comptroller at the close of the fiscal year shows the following outstanding balances:

| | |
|---|---|
| Debit Balances: | |
| General Fund | $3,600,000.00 |
| To Balance Bond Liability | 4,000,000.00 |
| Cash | 950,000.00 |
| Due from Fee Offices | 250,000.00 |
| Appropriation Expenditures | 3,500,000.00 |
| Credit Balances: | |
| Appropriation | 3,600,000.00 |
| Bonds, Series A | 500,000.00 |
| Bonds, Series B | 750,000.00 |
| Bonds, Series C | 600,000.00 |
| Bonds, Series D | 1,500,000.00 |
| Bonds, Series E | 650,000.00 |
| Bonds and Coupons due and unpaid | 30,000.00 |
| Warrants Outstanding | 559,000.00 |
| Tavern License Fund | 5,000.00 |
| Laboratory Fund | 6,000.00 |
| General Tax Income | 2,000,000.00 |
| Fee Office Income | 1,600,000.00 |
| Surplus | 500,000.00 |

Prepare journal entries closing operations for the year and classified balance sheet as at the close of the year.

SOLUTION.

1.

| | Dr. | |
|---|---|---|
| General appropriation account | $3,500,000 | |
| To appropriation expenditures | | $3,500,000 |

2.

| | Dr. | |
|---|---|---|
| Appropriation account | $3,600,000 | |
| To general appropriation account | | $3,600,000 |

3.

| | Dr. | |
|---|---|---|
| General appropriation account | $ 100,000 | |
| To contingencies | | $ 100,000 |

Expenditures appropriated but not expended.

4.

| | Dr. | |
|---|---|---|
| Bond Commissioners | $4,000,000 | |
| To Bond Liability | | $4,000,000 |

"Commissioners" are assumed, but possibly these bonds were issued for property held in fee by the municipality.

| | Dr. | |
|---|---|---|
| General tax income | $2,000,000 | |
| Fee offices | 1,600,000 | |
| To general fund | | $3,600,000 |





BALANCE SHEET.

| | | | |
|---|---|---|---|
| Cash | $ 950,000 | Bonds and coupons due and unpaid | $ 30,000 |
| Fee offices | 250,000 | Warrants outstanding | 559,000 |
| Bond Commissioners | 4,000,000 | Tavern license fund | 5,000 |
| | $5,200,000 | Laboratory fund | 6,000 |
| | | Contingencies | 100,000 |
| | | Surplus | 500,000 |
| | | | 4,000,000 |
| | | | $5,200,000 |

Bonds—

| | |
|---|---|
| Series A | $ 500,000 |
| Series B | 750,000 |
| Series C | 600,000 |
| Series D | 1,500,000 |
| Series E | 650,000 |
| | $4,000,000 |

Municipal book-keeping differs only in form and detail from the ordinary mercantile methods of double entry.

Illinois C. P. A. Examination, November, 1904. The books of a manufacturing corporation at the close of its first year's business show sales $241,863.50; returns and allowances $18,416.38; merchandise cash discounts $13,943.87; merchandise debit balance $69,346.92; labor $52,815.33; fuel $16,219.46; shop expense $9,247.50; salaries $16,214.30; general expenses $8,342.35; advertising $52,371.39; traveling expenses $4,364.28; insurance and taxes $6,250. The inventory figures up a total of $13,896.12, and before the books are closed, a sufficient sum for depreciation, namely $5,000, is written off. The company claims that conservatively stated its net profit for the year is $18,142.10.

Arrange the amounts in the form of an income account, and explain fully how the company could arrive at such net profit, and give reasons therefor.

SOLUTION.

INCOME ACCOUNT.

| | | | |
|---|---|---|---|
| Purchases, net | $ 69,346.92 | Sales | $241,863.50 |
| Labor | 52,815.33 | Less | 32,360.25 |
| Fuel | 16,219.46 | Returns and allowances | $18,416.38 |
| Shop expenses | 9,247.50 | Discounts | 13,943.87 |
| Insurance and taxes | 6,250.00 | | $32,360.25 |
| Depreciation | 5,000.00 | | |
| | $158,879.21 | | |
| Less inventory | 13,896.12 | | |
| Cost of merchandise sold | 144,983.09 | | |
| Gross Profits | 64,520.16 | | |
| | $209,503.25 | | $209,503.25 |

| | | | |
|---|---|---|---|
| Salaries | $ 16,214.30 | Balance down | $ 64,520.16 |
| Expenses | 8,342.35 | | |
| Traveling expenses | 4,364.28 | | |
| Advertising | 17,457.13 | | |
| ⅓ of amount expended. | | | |
| Net profits | 18,142.10 | | |
| | $ 64,520.16 | | $ 64,520.16 |

COMMENTS. It is only fair and in harmony with prudent management that the first year's advertising expenditures should be apportioned over a number of years, in this instance, three years, for this reason, the corporation finds it absolutely necessary to introduce its articles in the market through the medium of extensive advertising.

The whole burden of the first year's advertising should, however, not be loaded on the first year's operating expenses, because the subsequent years draw the benefits of this first year's outlay and should, therefore, stand their portion of the total initial outlay.

In fact, the entire advertising expenses for the first year might be considered the good will of the business, and subsequently written down over a number of years, or, the business being very prosperous from the results of prudent advertising, the first year's outlay may remain intact on the books in the form of a valuable asset, e. g., good will.

The company's estimate of the first year's profits was very conservative, indeed.

ILLINOIS C. P. A. EXAMINATION, MAY, 1906. A branch office business was started the first of the year, the head office advancing $5,000 cash. During the first year merchandise was shipped to branch, invoiced at $75,000.

An auditor, checking up the business at the close of the year, finds the following:

Merchandise sales were $60,000, with selling price of goods 20 per cent advance on invoice.

Proper vouchers were on file duly receipted for following payments:

| | |
|---|---|
| Rebates and allowances on damaged goods | $1,500.00 |
| Salaries and other expenses | 4,500.00 |
| Freights | 2,500.00 |
| Remittances to head office | $35,000.00 |
| Uncollected accounts | 15,000.00 |

The balance of the sales having been realized in cash, less rebates and allowances as noted.

The cash on hand and inventory of unsold goods, together with the foregoing records, properly account for everything.

Prepare statement, such as an auditor would make in reporting to the head office, balancing the business of the branch house.





SOLUTION.

| 1905. | Dr. | |
|---|---|---|
| Dec. 31—Cash | | $5,000 |
| (Advanced by home office). | | |
| Sales during the year | $60,000 | |
| Less rebates and allowances | 1,500 | |
| | $58,500 | |
| | $58,500 | |
| Less uncollected accounts | 15,000 | |
| | $43,500 | |
| Cash receipts from sales | | $43,500 |
| Accounts receivable | | 15,000 |
| Stock in trade | | 25,000 |
| | | $88,500 |

| 1905. | Cr. | |
|---|---|---|
| Dec. 31.—Cash, freight | | $ 2,500 |
| Cash, salaries and expenses | | 4,500 |
| Cash, remittances to home office | | 35,000 |
| Home office account | | 46,500 |
| Merchandise | $75,000 | |
| Cash | 5,000 | |
| | $80,000 | |
| Less remittances | 35,000 | |
| | $45,000 | |
| Net profits | 1,500 | |
| | $46,500 | |
| | | $88,500 |

| | | |
|---|---|---|
| 1905. | | |
| Dec. 31—Home office | | $ 5,000 |
| Sales | | 43,500 |
| | | $48,500 |
| Dec. 31.—On hand | | $ 6,500 |
| 1905. | | |
| Dec. 31.—Salaries and expenses | | $ 4,500 |
| Freight | | 2,500 |
| Home office | | 35,000 |
| Remittances | | 6,500 |
| Balance | | $48,500 |
| Cash on hand | | $ 6,500 |
| Accounts receivable | | 15,000 |

| | | |
|---|---|---|
| Stock in trade | | 25,000 |
| | | $46,500 |
| Home office account | | $46,500 |
| Balance | $45,000 | |
| Profits | 1,500 | |
| | | $46,500 |

PROFIT AND LOSS ACCOUNT—SHOWING PERCENTAGES.

EXPENDITURES—PER CENT OF SALES.

| | | |
|---|---|---|
| Cost of goods sold | 85.47% | $50,000 |
| Freight | 4.27% | 2,500 |
| Gross profits | 10.26% | 6,000 |
| | 100.00% | $58,500 |
| Salaries and expenses | 7.70% | 4,500 |
| Net profits | 2.56% | 1,500 |
| | 10.26% | $6,000 |

INCOME.

| | | Per Cent of Sales | |
|---|---|---|---|
| Salaries | $60,000 | 100.00% | $58,500 |
| Less rebates | 1,500 | | |
| Gross profits | | 10.26% | 6,000 |
| Balance down | | 10.26% | 6,000 |

New York C. P. A. Examination, January, 1903. One of the early experiences of the firm of Gardner & Kestin, Certified Public Accountants, was to make an investigation of the books and accounts of Evans, Smart & Byford (which firm had become involved in business difficulties and was compelled to stop payment) and to prepare from the following data a statement of affairs, accompanied by a deficiency account:

Unsecured creditors, A $35,000, B $27,500, C $26,000, D $24,500, E $17,500, F $15,000, and G $2,000; creditors for rent, salaries, etc., $1,250, of which $750 was preferential; debtors, $42,500, of which $37,500 was good, $1,825 doubtful (estimated to produce $625), and $3,125 bad; bills receivable, H $3,000, J $4,250, K $2,500 and L $1,500; land and buildings, $25,000, plant and machinery $8,500, stock on hand $5,000, furniture and fixtures $1,500, cash on hand $15,000, sundry profits $37,500, sundry losses $30,000, trading expenses $17,500. Evans' capital account was $5,000, Smart $3,750, Byford's $3,750; Evans' drawings were $10,000, Smart's $15,000, Byford's $17,500.

Show how you would have prepared the statements required had you been employed to do the work.

SOLUTIONS.

STATEMENT OF AFFAIRS, EVANS, SMART & BYFORD.

As at October 27, 1903.

Form A.

| Liabilities, as stated and estimated by debtors. | Expected to rank. |
|---|---|
| Unsecured creditors | $147,500 |





| | | |
|---|---|---|
| A | $35,000 | |
| B | 27,500 | |
| C | 26,000 | |
| D | 24,500 | |
| E | 17,500 | |
| F | 15,000 | |
| G | 2,000 | |
| Rent | | 500 |
| Preferred creditors | 750 | |
| Contra. | | |
| | | $148,000 |

| Assets, as stated and estimated by debtors. | | Estimated to produce |
|---|---|---|
| Debtors, good | $37,500 | |
| Debtors, doubtful | 625 | |
| | | $ 38,125 |
| Debtors, doubtful | 1,250 | |
| Debtors, bad | 3,125 | |
| | $ 4,375 | |
| Bills receivable | | 11,250 |
| H | $ 3,000 | |
| J | 4,250 | |
| K | 2,500 | |
| L | 1,500 | |
| Land and buildings | | 25,000 |
| Plant and machinery | | 8,500 |
| Stock on hand | | 5,000 |
| Furniture and fixtures | | 1,500 |
| Cash | | 15,000 |
| | | $104,375 |
| Less preferred creditors | | 750 |
| | | $103,625 |
| Deficiency | | 44,375 |
| | | $148,000 |
| Balance from statement of affairs | | 44,375 |

DEFICIENCY ACCOUNT.

| | | |
|---|---|---|
| Capital accounts | | 12,500 |
| Evans | $ 5,000 | |
| Smart | 3,750 | |
| Byford | 3,750 | |
| Profits | | 37,500 |
| | | $ 94,375 |
| Drawings | | 42,500 |

| | | |
|---|---|---|
| Evans | $10,000 | |
| Smart | 15,000 | |
| Byford | 17,500 | |
| Losses | | 30,000 |
| Trading expenses | | 17,500 |
| Debtors | | 4,375 |
| | | $ 94,375 |

FORM B.

| Descriptions— | Assets. | Liabilities. |
|---|---|---|
| Debtors | $ 38,125 | |
| Good | $37,500 | |
| Doubtful | 625 | |
| Bills receivable | 11,250 | |
| H | $ 3,000 | |
| J | 4,250 | |
| K | 2,500 | |
| L | 1,500 | |
| Land and buildings | 25,000 | |
| Plant and machinery | 8,500 | |
| Stock on hand | 5,000 | |
| Furniture and fixtures | 1,500 | |
| Cash | 15,000 | |
| Creditors unsecured | | $147,500 |
| A | $35,000 | |
| B | 27,500 | |
| C | 26,000 | |
| D | 24,500 | |
| E | 17,500 | |
| F | 15,000 | |
| G | 2,000 | |
| Preferred creditors | | 750 |
| Rent | | 500 |
| | $104,375 | $148,750 |
| Deficit | 44,375 | |
| | $148,750 | $148,750 |

| Capital Items— | Dr. | Cr. |
|---|---|---|
| Evan's capital | | $ 5,000 |
| Smart's capital | | 3,750 |
| Byford's capital | | 3,750 |
| Partners' drawings— | | |
| Evans | $ 10,000 | |
| Smart | 15,000 | |
| Byford | 17,500 | |
| | $ 42,500 | $ 12,500 |
| Balance, deficit | | 30,000 |
| | $ 42,500 | $ 42,500 |





| | | |
|---|---|---|
| Profit and Loss-items— | | |
| Sundry profits | | $ 37,500 |
| Sundry losses | $ 30,000 | |
| Trading expenses | 17,500 | |
| Debtors | 4,375 | |
| | $ 51,875 | $ 37,500 |
| Balance to deficit account | | 14,375 |
| | $ 51,875 | $ 51,875 |

DEFICIENCY ACCOUNT.

| | |
|---|---|
| Balance of Capital items | $ 30,000 |
| Balance of Profit and Loss items | 14,375 |
| | $ 44,375 |
| Excess of liabilities over assets | 44,375 |

The statement of affairs and its appendix, the deficiency account, is presented in two forms, A and B. Form A is ordinarily used in Great Britain, the English colonies and this country, whereas Form B is mostly in vogue in continental Europe.

NEW YORK C. P. A. EXAMINATION, JUNE, 1905. You are asked to prepare an account showing the profit earned by a concern for a certain period. The books have been kept by single entry and you gather from them the following:

| | |
|---|---|
| Capital | $19,360 |
| Cash | 2,600 |
| Accounts receivable | 15,600 |
| Merchandise | 10,400 |
| Fixtures | 1,650 |
| Accounts payable | 3,850 |
| Bills payable | 5,000 |
| Merchandise used by proprietor | 800 |

The capital above set out is the balance of the account after $1,500 withdrawn during the period and $1,20 for salary have been charged up against it.

Set up profit and loss account.

SOLUTION.

ASSETS.

| | |
|---|---|
| Cash | $ 2,600 |
| Accounts receivable | 15,600 |
| Merchandise | 10,400 |
| Fixtures | 1,650 |
| Total assets | $30,250 |

LIABILITIES.

| | | |
|---|---|---|
| Accounts payable | $ 3,850 | |
| Bills payable | 5,000 | |
| Capital | 19,760 | |
| | | 28,610 |
| Profits | | $ 1,640 |

ANALYSIS OF CAPITAL ACCOUNT.

| | | |
|---|---|---|
| Balance at end of period | | $19,360 |
| Before closing add salary account | | 1,200 |
| | | $20,560 |
| Deduct proprietor's merchandise | | 800 |
| Capital at closing | | $19,760 |

ILLINOIS C. P. A. EXAMINATION, MAY, 1904. At the close of its fiscal year, December 31st, 1902, a manufacturing corporation had a working capital of $86,451.78, consisting of,—cash in bank $5,200, accounts and notes receivable $79,516.80; stock on hand $30,483.20; less unpaid labor and accounts payable $28,748.22. During the year 1903 the management erected an addition to its main factory building costing $18,210.19 and installed therein machinery and equipment costing $16,309.27, with additional hand tools costing $3,298.50. After inventorying stock and closing the books to December 31st, 1903, a dividend of $45,000 was declared out of net profits for the year amounting to $54,817.96. The company was obliged to borrow the money to pay the dividend.

Give any reasons which occur to you as to why the loan was necessary and the propriety, or otherwise, of making it.

SOLUTION.

BALANCE SHEET.

Dec. 31, 1902.

| | | | |
|---|---|---|---|
| Cash | $ 5,200.00 | Unpaid labor and accounts payable | $ 28,748.22 |
| Accounts and notes receivable | 79,516.80 | Capital and surplus | 86,451.78 |
| Stock on hand | 30,483.20 | | |
| | $115,200.00 | | $115,200.00 |

The problem requires answers to two questions:

1. The reason why the loan was necessary;
2. The propriety or otherwise of making the loan.

To the first the answer is very simple. The company had made during the year extraordinary capital expenditures in the form of permanent improvements. While its net profits appear to have been over $54,000, nearly $38,000 was thus expended, so that, unless there had been an extraordinary realization on its general assets during the year, there would not be a sufficient amount of cash to pay $45,000 out in dividends.

The answer to the second question requires a careful consideration of all the facts.





Here we have a company doing a very considerable business, as shown by the year's profits of $54,817.96, while its working capital consists mostly of accounts and notes receivable and stock on hand, with a small proportion of cash. The liabilities, while not large, include unpaid labor, which indicates (if it was more than the usual current sum due on the pay roll for such fractional part of a week, made necessary by the date of the closing) a shortage of ready money. It is clearly the part of prudence to strengthen the company in this respect before declaring a dividend of any kind.

However, we must look a little closer. The directors justify their action by saying that the company has clearly earned the dividend, and that they are entitled to reimburse the company for capital expenditures; that the stockholders are entitled to a fair return on their money, etc.

We also know from history that while a loan to pay a dividend is seldom justifiable, it may sometimes be warranted and often has been practiced by conservative financiers. That if directors had not in the past capitalized improvements, few of the railroads in the country would ever have paid a dividend. This is all probably true, yet it requires at the very outset a consideration of the sort of loan proposed, the rate of cost, etc. If it is to be in the form of bonds to run considerable time, at a moderate rate of interest, the proceeds, thus used, being really to attract capital and thus extend the business, the policy may perhaps be admissible.

Before admitting this, however, as an accountant, I would want to examine more carefully the conditions. The problem does not state, whether outside of this "working capital" of $86,451.78 there are any other assets; whether the plant, etc., is owned or leased. Let us assume that it is owned. Then I should want to inquire how this net gain of $54,817.96 was arrived at—whether repairs and maintenance had been properly charged to expense; whether adequate sums had been written off or set aside for depreciation; whether reserves were maintained for losses on bad debts, etc.; also whether the considerable amount of accounts and notes receivable indicated slow collections.

A most rigid treatment of these points would be required.

Further, as it is proposed to capitalize these improvements, let us examine what they are.

The $18,210.19 spent for addition to factory building would probably stand as good and proper, if carefully and economically spent. Depreciation, however, should be provided for in the future.

As to the $16,309.27 spent for machinery, the propriety of capitalizing the whole sum would depend on the nature of the machinery, its duration of life in ordinary use, its liability to be superseded by improved machinery, etc.

A liberal reserve should be set aside to replace and renew it.

As to the $3,298.50, spent for hand tools, I should doubt the propriety of calling this or much of it a capital expenditure. The loss from wear

and tear, breakage, being lost or carried away by workingmen, etc., would probably be great. I would charge the greater part of this item, if not all, at once to expense.

This question should all be considered in relation to the nature of the business carried on. What might be a proper treatment of these matters for one sort of business, might be clearly improper for another, and it is a pity the problem did not enlighten us on this matter. We can only draw general conclusions from a consideration of the above matters.

In general, a loan to pay dividends is imprudent and improvident and can only be justified by extraordinary circumstances, and if such circumstances seem to exist, a most rigid and careful examination of the things suggested above should be insisted on.

In this particular case I should consider the dividend too large, and the making of a loan to pay it exceedingly unwise.

ILLINOIS C. P. A. EXAMINATION, NOVEMBER, 1903. Brown and Jones begin a partnership business Jan. 1, 1902; at the time of closing the books, Dec. 31st, 1902, an examination of the account revealed the following:

| | |
|---|---|
| January 1st Brown paid in | $9,000.00 |
| May 1st Brown paid in | 2,400.00 |
| June 1st Brown drew out | 1,800.00 |
| September 1st Brown drew out | 2,000.00 |
| October 1st, Brown paid in | 800.00 |
| January 1st Jones paid in | 3,000.00 |
| March 1st Jones drew out | 1,600.00 |
| May 1st Jones drew out | 1,200.00 |
| June 1st Jones paid in | 1,500.00 |
| October 1st Jones paid in | 3,000.00 |

Their merchandise account was Dr. $32,000, Cr. $27,000. Balance of merchandise on hand per inventory $10,500. Cash on hand $4,900. Bills receivable $12,400. Chas. Green owes on account $250; F. Draper owes $700; Wm. Clark owes $650; F. Hart owes $850. They owe on their notes $1,890. They owe A. Reed on account $240; owe C. Smith $500; owe A. Clark $100. Their profit and loss account shows before closing entries Dr. $866, Cr. $1,520; expense account is Dr. $2,520. Commission account is Cr. $2,760. Interest is Dr. $480, Cr. $950. The gain or loss is to be divided in proportion to each partner's capital, and in proportion to the time it was invested.

Prepare (1) Asset and liability statement. (2) Merchandise account closed. (3) Profit and loss account closed. (4) Each partner's account closed. (5) Balance sheet.

SOLUTION.

A.

Dec. 31, 1902.

ASSET AND LIABILITY STATEMENT.

| | | | |
|---|---|---|---|
| Cash on hand | $ 4,900 | Open creditors | $ 840 |
| Accounts receivable | 2,450 | Bills payable | 1,890 |
| Bills receivable | 12,400 | Suspense account | 7,556 |
| Stock in trade | 10,500 | | |
| | $30,250 | Total | $10,286 |
| | | CAPITAL. | |
| | | Jones $4,700 | |
| | | Brown 8,400 | |
| | | | 13,100 |
| | | Undivided profits | 6,864 |
| | | | $30,250 |





MERCHANDISE ACCOUNT.

| | | | |
|---|---|---|---|
| Purchases | $32,000 | Sales | $27,000 |
| Less stock in trade | 10,500 | | |
| Cost of merchandise sold | $21,500 | | |
| Gross profits | 5,500 | | |
| | $27,000 | | $27,000 |

PROFIT AND LOSS ACCOUNT.

Section I.

| | | | |
|---|---|---|---|
| Expenses | $2,520 | Balance from Merchandise account | $5,500 |
| Balance down (Being ordinary business profits.) | 5,740 | Commissions | 2,760 |
| | $8,260 | | $8,260 |

Section II.

| | | | |
|---|---|---|---|
| Interest | $ 480 | Balance | $5,740 |
| Net profits | 6,864 | Interest | 950 |
| Brown $5,386.44 | | Old balance | 654 |
| Jones 1,477.56 | | | |
| | $7,344 | | $7,344 |

BALANCE SHEET. DEC. 31, 1902.

| Assets. | | Liabilities. | |
|---|---|---|---|
| Cash | $ 4,900 | Bills payable | $ 1,890.00 |
| Merchandise | 10,500 | Accounts payable | 840.00 |
| Bills receivable | 12,400 | Suspense account | 7,556.00 |
| Accounts receivable | 2,450 | | $10,286.00 |
| | | Proprietorship: | |
| | | Brown | 13,786.44 |
| | $30,250 | Jones | 6,177.56 |
| | | | $30,250.00 |

CAPITAL ACCOUNT.

Brown.

| | | | |
|---|---|---|---|
| June 1, 1902 | $1,800.00 | Jan. 1, 1902 | $ 9,000.00 |
| Sept. 1 | 2,000.00 | May 1 | 2,400.00 |
| Balance | 13,786.44 | Oct. 1 | 800.00 |
| | $17,586.44 | Dec. 31, net gain | 5,386.44 |
| | | | $17,586.44 |
| | | Balance | $13,786.44 |

Jones.

| | | | |
|---|---|---|---|
| March 1, 1902 | $ 1,600.00 | Jan. 1, 1902 | $ 3,000.00 |
| May 1 | 1,200.00 | June 1 | 1,500.00 |
| Dec. 31, balance | 6,177.56 | Oct. 1 | 3,000.00 |
| | | Dec. 31, net gain | 1,477.56 |
| | $ 8,977.56 | | $ 8,977.56 |

Balance ..... $ 6,177.56

DIVISION OF PROFITS.

Brown.

| | | |
|---|---|---|
| Jan. 1, $9,000 for 12 mos., = | $108,000 | |
| May 1, 2,400 for 8 mos., = | 19,200 | |
| Oct. 1, 800 for 3 mos., = | 2,400 | |
| | | $129,600 |
| Less drawings— | | |
| June 1, $1,800 for 7 mos. | $12,600 | |
| Sept. 1, 2,000 for 4 mos. | 8,000 | |
| | | 20,600 |
| Balance | | $109,000 |

Jones.

| | | |
|---|---|---|
| Jan. 1, $3,000 for 12 mos., = | $36,000 | |
| June 1, 1,500 for 7 mos., = | 10,500 | |
| Oct. 1, 3,000 for 3 mos., = | 9,000 | |
| | | 55,500 |
| Less drawings— | | |
| Mar. 1, $1,600 for 10 mos. | $16,000 | |
| May 1, 1,200 for 8 mos. | 9,600 | |
| | | 25,600 |
| Balance | | 29,900 |
| Total | | $138,900 |

## (138) AGENDA BOOK.

A title given to a memorandum book kept by the secretary of a corporation for the purpose of entering therein notes of meetings of stockholders or board of directors.

This agenda book may also be found useful for the purpose of entering memoranda of such matters as may be considered desirable from time to time to bring to the attention of directors or stockholders at a subsequent meeting.

## (139) AGENT.

A person employed to represent a business for the sale of its goods, or to obtain contracts, or dispose of or acquire those commodities or rights, etc., in which the business represented may trade or deal.

Such agents may be described as traveling agents; agents who undertake as a side line, the sale of commodities belonging to the concern by whom they are appointed, who may have the sole agency, or that for a





city or district, may be remunerated by commission only, or by salary, and commission; or may be charged with the goods supplied at a certain agreed rate, receiving as remuneration the difference between the price charged and the amount at which the sale is effected; agents for insurance companies who receive as a remuneration a certain proportion of premium receipts in their territory and who may in turn appoint sub-agents.

## (140) AGENTS' ACCOUNTS.

The consideration of the accounts of agents for insurance companies will be taken up under the head of Insurance.

The accounts of an agent for a general business, such as mentioned above, frequently present a great many complications and require a considerable amount of book-keeping, especially where the accounts of the agents with customers, for instance are collected by the head office. In such cases the agent is usually required to forward a daily report of sales in his territory, which report is frequently transcribed into a journal before posting the items to the ledger. A special form of report can, however, easily be devised from which posting can be made direct without the interposition of another book of entry, and these reports can be kept in a binder which can be labeled "Cleveland Agent's Sales Journal."

Where the agent receives a certain percentage on gross sales, it is a very simple matter to keep track of his business, charging commission account and crediting the agent with the percentage earned either daily, weekly or monthly, as found convenient.

Where the goods are charged to the agent at, say 10 per cent above cost, it will be seen that the 10 per cent above cost enters into account both in the gross sales charged in customers and the credit to merchandise when th egoods are charged to the agent. The plan used by many houses which make arrangements of this kind with agents is as follows:

AGENTS SALES RECORD

| DATE OF SHIPMENT | DESCRIPTION | QUAN'TY | PRICE | AMT | DATE OF REPORT | DESCRIPTION OF SALE | QUAN. TITY | PRICE | AMT | AGENT'S CR. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

When goods are shipped to the agent for sale, a list of the shipments is prepared, providing a column in which to enter the amounts at which the goods are charged to the agent, and another column in which to enter the amounts at which the agent makes his sales. This list we will hereafter refer to as "Agent's Inventory." Open an account with the agent and charge him with the goods at cost and 10 per cent added, crediting an account to be opened, entitled "Agent's Sales Account." As the agent's

account sales come in, charge the customers in the usual way, and credit the regular sales account, entering on the agent's inventory the amount realized by the agent from the sales. The footing of the two columns on the agent's inventory will then show the excess over profits at which the goods were billed to him. Having ascertained this amount, charge agent's sales account with the sales made at the prices billed to the agent and credit the agent's account. Credit the agent with the difference between the totals of the two columns on the agent's inventory and charge commission account with the amount. When the customer pays the bill, credit him, the charge being to cash. When the settlement is made with the agent, charge his account with the amount paid him, the credit being to cash.

In order to make this quite clear, we append the following journal entries:

| Dr. | | Cr. |
|---|---|---|
| $770.00 | Agent—bill of goods with 10% added to cost. | |
| | Agent's Sales ..... | $770.00 |
| 125.00 | John Smith & Co. | |
| | (Agent's report, 1-6-99) | |
| | Sales ..... | 125.00 |
| 110.00 | Agent's Sales. | |
| | Agent (Sales 1-6-99) ..... | 110.00 |
| 15.00 | Commission. | |
| | Agent's profits on Sales for 1-6-99..... | 15.00 |
| 125.00 | *Cash. | |
| | John Smith Co. ..... | 125.00 |

*In this and other illustrations in the American Business and Accountants' Encyclopædia cash is included in journal entries simply to accomplish lucidity of explanation.

It will be found desirable to credit agent's profits to a separate account, for the reason that if they are credited to the agent's account, they will prevent that account from showing exactly the inventory of goods he has on hand remaining unsold. Inasmuch, however, as the agent's sales account will exhibit precisely the same statistics it may be considered that this is all that is necessary, in which case the agent's account can be credited with the profits, each credit being distinguished from other credits when posted, so that at any time they can be extracted for the purpose of checking up the agent's claim for the amounts due him.

According to the above journal entries, the accounts affected would stand thus after postings had been made:

| Dr. Balances. | | Cr. Balances. |
|---|---|---|
| $660.00 | Agent. | |
| | Agent's Sales ..... | $660.00 |
| 15.00 | Commission. | |
| | Agent's Profits ..... | 15.00 |
| 125.00 | Cash. | |
| | Sales Account (regular) ..... | 125.00 |

It will be seen that the agent's account shows that of the goods





furnished him he has disposed of $110 worth and has $660 worth on hand. The agent's profits on sales effected—$15—have been credited to him and charged to commission account as a selling expense; the customer has paid his account, while the sales account has been credited with the gross amount of sales—$125.

Accounts with traveling salesmen are kept in a variety of ways, and we think it would be of interest, as well as instructive, to reproduce here the methods used in four large business houses for keeping track of debits and credits to their traveling salesmen.

No. 1.

It is not always convenient to keep the cash accounts with the traveling salesman in the general ledger. If there are many travelers they will occupy a large amount of space in this book, besides, these accounts can be more readily referred to and much easier kept track of, by means of a small cash ledger used only for this purpose.

The book we use is about five and one-half inches wide and eight inches long, and is ruled like form shown herewith:

William Simpson—Trip from Jonesville to Bloomington.

| Date. | Particulars. | Dr. | Cr. | Dr. or Cr. | Bal. |
|---|---|---|---|---|---|
| 1896. | | | | | |
| Dec. 1 | Cash ..... | $50.00 | ..... | Dr. | $50.00 |
| | (Wages paid to date.) | | | | |
| " 7 | Expenses for week ..... | ..... | $23.75 | Dr. | 26.25 |
| " 7 | J. B. Dalton ..... | 17.80 | ..... | Dr. | 44.05 |
| " 10 | Cash to family ..... | 10.00 | ..... | Dr. | 54.05 |
| " 12 | Expenses for the week ..... | ..... | 22.00 | Dr. | 32.05 |
| " 12 | By two weeks' wages ..... | ..... | 34.00 | Cr. | 1.95 |
| " 12 | Cash to balance ..... | 1.95 | ..... | | |
| | | $79.75 | $79.75 | | |

This book lies in the cash drawer, and when counting the cash every night the amount charged in this book to each traveler is counted as cash.

A book of this size, with about two hundred pages, will record the transactions of five or six travelers for about two years, and when filled it can be laid away and easily and readily referred to. A certain number of pages are allowed to each man, so that when the book is completed, the transactions of each account follow in regular order.

On account of its easy reference, we find it works very satisfactory, as the date of any previous trip can be quickly turned to.

When a man starts out on a trip he is given a certain amount of money which is entered only in this book. At the end of the week he sends to the house an itemized account of his expenses for that week, which is credited to him in this book, and this amount is charged to general expenses in the cash book. If he collects any money on the road, the fact is reported at once, and he is charged with the amount, while the customer is credited with it in the general cash book.

If his family get any money during his absence, this fact is recorded, and the amount charged to him. When he comes home his account is balanced by crediting him with his wages for time absent and paying the balance due him.

No. 2.

The method hereunder outlined has been put to practical use, and while simple in detail, has been found to be very comprehensive and satisfactory.

Two accounts are opened for each salesman,—"Personal" and "Sample." To the personal account is posted only such items as remittances from the house and such collections as the salesman may make on his trip, wherein the proceeds are retained by him for his use as previously arranged, for the debtor side; and for the credit side salary and expenses covering railroad fare, hotels and other legitimate items, as shown by weekly reports. This account should be balanced at convenient times, but particularly upon completion of each trip, when the account can be checked with the salesman if necessary.

We now come to the sample account, which takes for its first entry a charge from the sales journal, covering the aggregate selling value of all goods taken by the salesman when starting on his trip. As each sale or delivery of goods is made by the salesman, whether for cash or on time, he should immediately report the transaction on the regular form of order blank when the charge in the home books would be in the event of a cash sale:

John Hustle (salesman), Personal.
To John Hustle, Sample.

entering the description of goods in detail, or merely referring to reported date of sale. When the goods are delivered, or sold on time, an invoice must be made and mailed to the customer, and the proper entry for the home books would be:

Marshall, Meadow & Co., (Customer).
To John Hustle, Sample Account.

These entries involving transactions by the salesmen should be made in the sundries journal, as the goods have already entered into the sales record through the original charge to salesman.

Immediately upon return of the salesman to the home plant his samples and stock of goods remaining on hand should be checked up and credited through the sales journal, when, with all items posted, his sample account should be in balance.

No. 3.

Our attention having been called to the question of dealing with the accounts of traveling salesmen, particularly with the method outlined in No. 2, we have carefully examined same and note the claim that the system has been put to practical use, is simple in detail, very comprehensive and satisfactory.





As far as the knowledge and desire of those who use it are concerned, this may all be true; but as viewed from another standpoint, it appears to be open to criticism. It recommends that two accounts be kept with each salesman; one a "Personal" and one a "Sample" account. It then explains that to the "Personal" account should be posted among other things "such collections as the salesman may make on his trip, wherein the proceeds are retained by him for his use," etc.

As long as the salesmen are strictly honest, the simplicity of the plan proposed is sufficient to recommend it; but simplicity is not the only feature that should be considered, and while it would be wrong to cast an unjust reflection on any man's honesty, it is, nevertheless, a fact that one object in keeping accounts is to avoid, as far as may be, all possibility of loss, and it would be well before inaugurating or continuing such a system to consider the possible contingencies.

Let us suppose, that under such a system, one of the salesmen has retained a number of his collections for personal use, and they have been simply charged to such a "Personal" account kept with him as an individual, together with other miscellaneous items. Let us further suppose that settlement is requested of him when the fact is brought to light that he has appropriated funds far beyond the business needs and is "short"; or that he has taken what money he could collect and disappeared, after having reported said collections and authorized a charge to his account of the amount, in accordance with previous plans.

Under such conditions the only chance to secure a settlement would be to rely on such laws as relate to the collection of ordinary debts. He has had unlimited authority to collect what he could, with privilege of having it charged to him personally as a principal and not as an agent.

A much better way to handle such matters is to require the salesmen to remit promptly for each and every collection made, and when received, credit the accounts on which the payments are made. In other words, never allow a collection to pass through an employe's personal account.

If a salesman requires money for expenses or other purposes, remit or pay it to him on receipt of proper vouchers showing that he has expended the amount. If it becomes necessary to advance money for similar purposes, charge it to him as "Agent," "Custodian," or in a fiduciary account, with particulars plainly indicated by the entries made, and such vouchers as should be required of him; or the same transactions may be handled in various other ways that will comply with existing conditions and, at the same time, like the plan herein explained, place a case of retention of funds subject to the laws regarding embezzlements, when the salesman's person may be attached for the unpaid balance. His "Personal" account should be a record of settlements promptly made, and not one of unsettled balances.

Another feature of the advice given in No. 2 is worthy of attention. It proposes to charge the salesman's sample accounts with such goods

as may be shipped to them, subject to sale and regarding the entries for subsequent sales made by them, stating they should be made in the sundries journal, "as the goods have already entered into the sales record through the original charge to salesmen." While in such cases the manner of handling sales totals may be so adjusted as to produce correct results, the plan proposed, without further proper treatment, would certainly produce an incorrect total of gross profits in a monthly statement, unless all of such goods have been sold and charged to final purchasers at that time.

If such goods are charged to the salesman at cost, the profits, when actual sales are made, would be omitted from the original sales record, and if charged to salesmen at a profit, a monthly statement of totals shown would represent an incorrect profit total, by having thus considered the profits on such goods as had not been finally disposed of.

Again, when final sales were made from such stock, unless they were at the same prices at which they had been charged to salesmen, an adjusting entry would become necessary for the difference, which, under some systems, would then be difficult to incorporate in the original sales record.

The conditions in question might be systematically and correctly recorded in the following manner, viz.:

Open accounts with each salesman in the style of "John Johnson, custodian:" or "John Johnson, sample account," or any similar title that will briefly indicate the facts. Then open one other account as "merchandise in transit," or "salesmen's samples," or such title as may be decided on. Now, presuming that a special book is kept for sales, and a journal for all other entries that are not cash, the method of handling such matters would be as follows:

For shipment to salesmen, if charged at cost, debit "John Johnson, custodian," credit "salesmen's samples," and at the same time charge the goods to the purchaser in the regular manner through the sales book.

If goods are charged to salesmen at a profit, the entries would be the same; but in either case great care would have to be exercised in making the second entries exactly the same prices at which the goods were originally charged to the salesmen's accounts.

By this plan the salesmen's sample accounts will represent at all times the value of goods that remain in the charge of each, while the "merchandise in transit" account will represent, by its credit balance, the total value of goods held by all the salesmen, unsold.

This latter account is in the nature of a memoranda only, and while it shows a credit balance, it simply requires the proper treatment in any business statement that may be made, in order to show correct results. By this plan the profits are in no case overestimated, and require no special adjusting entries; neither do the sales book totals contain any except actual sales.





No. 4.

The keeping of a close line on the accounts with our salesmen has been the cause of much trouble in our office. We have at last gotten on the right track, and while there are some points in our system that may not be adapted to the uses of some other lines of business, this is just what we have needed:

First: The accounts with the various salesmen are on a purely commission basis—one-half of the commission being paid when the order is accepted and the balance when the account is paid. It will be readily seen that there will always be a balance large enough to protect the house against the charge back commissions arising from goods being returned and other causes.

Second: The goods are mostly sold on thirty days' trial, and this tends to lengthen the term of credit considerably.

Third: The goods are special fittings, or machines, and if an agent makes a wrong measurement for the fittings, there arises express charges and other costs which must be kept track of in such a manner as to allow ready reference when any question arises concerning an order when making a settlement with the salesman.

Fourth: It is very desirable to have a complete record of each order in such shape that the record can be used as a basis for future quotations and correspondence.

Our plan is virtually as follows: When an order comes in from a salesman, we first take a card and fill out the name, address, rating, etc.; then the salesman order number and our order number; the date of the order, amount of the order, the symbols showing kind of goods; then follows the amount of the salesman's commissions, with one-half carried in short for ready reference; the one-half commission is then credited to the salesman's account in the ledger ready for settlement. Should the shipment be prepaid at the expense of the agent, the express is charged on the card, but not in the ledger at this time, this item appears on the card under date of shipment; the date of shipment also appears under the heading "Amount of Order."

When the account is paid by the customer, the card is taken from the case, and the amounts to be charged back to the salesman are entered against his account in the ledger and credit given for the one-half commission unpaid. On the card the cash difference is shown. Each week the salesman receives an itemized statement of the orders received with the commissions thereon; the accounts paid, with a list of charge back items and unpaid commissions due. This enables the salesman to have a check on the house, and at the same time any differences in the accounts are at once detected. After the card has become a "paid account card," it is transferred to the transfer case, a record card first being made for the customer's record case for use in correspondence, quotations, advertising mat-

ter, etc. This is done for the reason that the salesmen do not work the same territory continuously, and the orders that drift in afterward are not those on which the salesman receives any commission.

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The relation of agent's accounts to balance sheets, trading accounts and profit and loss accounts is easily understood where separate accounts are kept with agencies. The best method of incorporating the transactions of an agency is, by some accountants, considered to be by means of a grand balance sheet, including all the assets and liabilities of the main office and of the agencies, and a detailed balance sheet provided with separate columns for each agency, treating trading account and profit and loss account in the same manner. In this way the gross and net profits, inventories and expenses of each agency will be exhibited contemporaneously with the statistics of the main office and the combined statistics of the whole business.

The methods of keeping record of agency sales vary with the different requirements of different lines of business. Thus, in breweries, where, as a rule, a large number of agents are employed, it is desirable to formulate a special record, which shall show at a glance each agent's sales and the total quantity sold of each size of package, such as cases or barrels.

### (141) ALLIGATION.

A term used to describe the mixing of various ingredients, or combinations of different qualities or values, and the finding of the average value of such a combination.

Thus, if a merchant desires to make a mixed quality of tea, composed of a mixture of different grades, alligation signifies the process of finding how much of each grade he can include in a given quantity of a mixture which is to sell at a given price.

### (142) ALIQUANT.

A part of a number or quantity which, when dividing this number or quantity, leaves a remainder; thus 7 is an aliquant part of 20.

### (143) ALIQUOT.

A part of a number or quantity which divides that number or quantity without leaving a remainder; thus 7 is an aliquot part of 21.

Aliquot parts of numbers are largely used to shorten and simplify the operation of multiplication, especially in computations involving fractional prices or quantities.

The aliquot parts of 10, 100 and 1,000 are hereunder given:





ALIQUOT PARTS.

OF 10.

| | | |
|---|---|---|
| 2 1-2=1-4 | 1 2-3=1-6 | 1 1-4=1-8 |
| 3 1-3=1-3 | 1 3-7=1-7 | 1 1-9=1-9 |

OF 100.

| | | |
|---|---|---|
| 6 1-4=1-16 | 16 2-3=1-6 | 50 =1-2 |
| 8 1-3=1-12 | 25 =1-4 | 62 1-2=5-8 or 1-16 of 1000 |
| 12 1-2=1-8 | 33 1-3=1-3 | 75 =3-4 |
| 14 2-7=1-7 | 37 1-2=3-8 | 87 1-2=7-8 |
| | 18 3-4=3-16 | 31 1-4=5-16 |

OF 1000.

| | | |
|---|---|---|
| 83 1-3=1-12 | 166 2-3=1-6 | 333 1-3=1-3 |
| 125 =1-8 | 250 =1-4 | 375 =3-8 |
| 625 =5-8 | | 875 =7-8 |
| 833 1-3=5-6 | | |

Thus to compute 439 yards of muslin at 8 1-3 cents per yard multiply by 100 and divide by 12.

The following tables of aliquot parts of a lineal foot, or one dozen, and tons, will be found useful:

TABLE OF ALIQUOT PARTS.

| Aliquot Parts | Of 1 foot or 1 dozen. | Aliquot Parts. | Of 1 Ton of 2000 lbs. |
|---|---|---|---|
| One thirty-second is | 3/8 of 1 in. | One thirty-second is | 62½ |
| One-sixteenth is | 3/4 of 1 in. | One-sixteenth is | 125 |
| One-eighth is | 1½ in. | One-eighth is | 250 |
| One-fourth is | 3 in. | One-fourth is | 500 |
| Three-eighths is | 4½ in. | Three-eighths is | 750 |
| One-half is | 6 in. | One-half is | 1000 |
| Five-eighths is | 7½ in. | Five-eighths is | 1250 |
| Three-fourths is | 9 in. | Three-fourths is | 1500 |
| Seven-eighths is | 10½ in. | Seven-eighths is | 1750 |
| One-twelfth is | 1 in. | One-twelfth is | 166 2-3 |
| One-sixth (2-12) is | 2 in. | One-fifth is | 400 |
| One-third (4-12) is | 4 in. | One-sixth (2-12) is | 333 1-3 |
| Five-twelfths is | 5 in. | One-third (4-12) is | 666 2-3 |
| Seven-twelfths is | 5 in. | Five-twelfths is | 833 1-3 |
| Two-thirds (8-12) is | 8 in. | Seven-twelfths is | 1166 2-3 |
| Five-sixths (10-12) is | 10 in. | Two-thirds (8-12) is | 1333 1-3 |
| Eleven-twelfths is | 11 in. | Five-sixths (10-12) is | 1666 2-3 |
| One-fortieth is | 5-6 of 1 in. | Eleven-twelfths is | 1833 1-3 |
| | | One-fortieth is | 50 |

### (144) ALLOTMENT.

A share or portion; that which is allotted.

### (145) ALLOTMENT OF SHARES.

In large corporations, especially those whose stock is open to public subscription, it is necessary to keep a record of shares applied for and shares allotted, as it frequently happens that applications have to be passed upon and the most desirable ones selected. This is more especially true of very promising mining companies.

In such a case, one of the authorities on corporation accounting recommends separate sheets being employed for each letter, and where subscriptions are invited for more than one class of share, the employment of separate application forms, printed on different colored paper, so that the applications and allotment sheets for each class of shares may be easily distinguished. When the allotment is complete the sheets can be bound

REGISTER OF SHARE APPLICATIONS AND ALLOTMENTS

| DATE OF APPL'N | NO. | NAME | ADDRESS | OCCUPATION | NO. SHARES APP'D FOR | FOLIO | DEPOSIT | | SHARES ALLOTED | NO'S | FOLIO | AMOUNT DUE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |

either in the form of a book or a binder, in order to make a permanent record.

Appended is an illustration of a record of applications and allotment.

## (146) ALLOWANCE.

The amount credited to a debtor, or claimed by a purchaser, on account of overcharge, inferiority, damage, error, or discount.

A good method of dealing with allowances to customers is to provide consecutively numbered credit tickets (journal vouchers) for all allowances other than cash deductions, each voucher to be O. K.'d by a responsible official.

In some establishments all credits of this description are passed through the voucher record, in which case it is necessary to provide a special accounts receivable column to receive the contra entry.

## (147) AMALGAMATION.

A term used to indicate tne combination of two or more concerns who previously have carried on business independently. (See also Consolidations.)

The following illustrates the general accounting methods used in preparing the necessary data for recording the respective interests of the concerns proposing to amalgamate, and the adjustments consequent thereto.

John Deal and Alex. Wood, cabinetmakers, enter into an agreement for the sale of their respective businesses to a limited company, as at 30th Sept., 1906.

From the following data prepare—





(a) Profit and loss adjustment account for each business (treating all necessary adjustments of the profit and loss account as falling into the last year), and calculate good will, based on two years' purchase of the average profits of the last three years, as adjusted by you.

(b) Balance sheet of Deal, Wood & Co., Lt'd., as 1st Oct., 1906, without distinguishing between the respective interests of the vendors.

The figures submitted to you are as follows:

| | John Deal. | Alex. Wood. |
|---|---|---|
| Cash balances | $ 1,025.00 | $ 100.00 |
| Debtors | 21,625.00 | 25,725.00 |
| Creditors (including bond of $100,00 on Wood's building) | 13,750.00 | 27,525.00 |
| Stocks | 25,000.00 | 45,000.00 |
| Bad debt reserves | 500.00 | 2,500.00 |
| Insurance premiums paid | 225.00 | 375.00 |
| Bills receivable on hand | 2,250.00 | ..... |
| Bills receivable discounted | 2,500.00 | 3,000.00 |
| Bills payable | ..... | 11,600.00 |
| Leasehold premises | 3,375.00 | ..... |
| Ground and buildings | ..... | 85,000.00 |
| Plant and tools | 12,500.00 | 18,000.00 |
| Bank overdraft | ..... | 3,750.00 |
| Balance in bank | 1,625.00 | ..... |
| Profits— | | |
| Year to 30th Sept., 1904 | 8,750.00 | 11,000.00 |
| Year to 30th Sept., 1905 | 4,600.00 | 13,350.00 |
| Year to 30th Sept., 1906 | 13,100.00 | 20,025.00 |

Ground and buildings are to be taken over at the above figure; plant and tools at a valuation which shows an appreciation of $500 in Deal's case, and depreciation of $1,000 in Wood's case. Assume that depreciation charged in the profit and loss accounts does not require alteration.

It is further arranged between the parties to reduce the figure of Deal's stock by 13 per cent and Wood's by 15 per cent, to write $1,115 off the leasehold premises in view of nothing having been written off during the last three years), and that Deal's bad debt reserve is unnecessary. You also find that one-third of the insurance premiums has expired in each case, and that Deal's "cash balance" consists to the extent of $875 of his personal drawings.

The price of the combined businesses is payable, one-third in debentures and two-thirds in ordinary shares; 2,500 preference shares of $10 each are issued, on which $1 per share has been paid to provide further working capital. The limited company assumes all liabilities and takes over the book debts and other assets. No interest is payable on the purchase price.

## SOLUTION.

Before proceeding with the profit and loss adjustment accounts, I give paragraphs as stated in problem mentioning at which values assets and liabilities are to be taken over by limited company, etc.: "Ground and buildings are to be taken over at the above figure; plant and tools which show an appreciation of $500 in Deal's case, and depreciation of $1,000 in Wood's case. Assume that depreciation charged in the profit and loss accounts does not require alteration. It is further arranged between the parties to reduce the figure of Deal's stock by 13 per cent and Wood's

PROFIT AND LOSS ADJUSTMENT ACCOUNT OF JOHN DEAL, AS AT SEPT. 30, 1906.

(*a*)

| Dr. | | Cr. | |
|---|---|---|---|
| To Reduction on Stock | $ 3,250.00 | By Profit to year Sept. 30th, 1906 (as shown) | $13,100.00 |
| To Amt. written off Leasehold Premises | 1,115.00 | By Appreciation on Plant and Tools | 500.00 |
| To Expired Insurance Premiums | 75.00 | By Bad Debts Reserve (being unnecessary) | 500.00 |
| To Personal Drawings (included in cash balance) | 875.00 | | |
| | $5,315.00 | | |
| Balance, being Net Profit for year ending Sept. 30, 1906 | 8,785.00 | | |
| | $14,100.00 | | $14,100.00 |

by 15 per cent, to write $1,115 off the leasehold premises (in view of nothing having been written off during the last three years), and that Deal's bad debt reserve is unnecessary. It is also found that one-third of the insurance premium has expired in each case, and that Deal's cash balance consists to the extent of $875 of his personal drawings."

| | |
|---|---|
| By Net Profit brought down | $ 8,785.00 |
| By Profit year ending Sept. 30, 1904 | 8,750.00 |
| By Profit year ending Sept. 30, 1905 | 4,600.00 |
| Total Profits for three years | $22,135.00 |

In stating "reduction on stocks," etc., in above, I do not show what per cent has been written off, as this should be plainly stated on explanation in journal entries of these adjustments.

Dr.

PROFIT AND LOSS ADJUSTMENT ACCOUNT OF ALEX. WOOD AS AT SEPT. 30, 1906.

(*a*)

| | |
|---|---|
| To Depreciation on Plant and Tools | $ 1,000.00 |
| To Reduction on Stock | 6,750.00 |
| To Expired Insurance Premium | 125.00 |
| | $7,875.00 |
| Balance, being Net Profit, year ending Sept. 30, 1906 | 12,150.00 |
| | $20,025.00 |





| | |
|---|---|
| By Profit for year ending Sept. 30, 1906, as shown | $20,025.00 |
| By Amount Net Profit brought down | $12,150.00 |
| By Profit for year ending Sept. 30, 1904, as shown | 11,000.00 |
| By Profit for year ending Sept. 30, 1905, as shown | 13,350.00 |
| Total Profit for 3 years | $36,500.00 |

Good will based on two years' purchase of the average profits of the last three years, as adjusted, will be as follows:

| | |
|---|---|
| Profits for three years, after adjustment | $22,135.00 |
| Average profit per year | 7,378.34 |
| Two years' average profits | 14,756.68 |

which amount is to be allowed Deal for good will.

| | |
|---|---|
| Profits for three years, after adjustment | $36,500.00 |
| Average profit per year | 12,160.66 |
| Two years' average profits | 24,333.32 |

which amount is to be allowed Wood for good will.

Before rendering (b) the balance sheet of the limited company, I will give statements of assets and liabilities of Deal and Wood each, after adjustments have been made, which are to be carried over by the limited company, as follows:

JOHN DEAL.

ASSETS.

| | |
|---|---|
| Balance in bank | $ 1,625.00 |
| Cash Balances | 150.00 |
| Bills Receivable on hand | 2,250.00 |
| Debtors | 21,625.00 |
| Stocks | 21,750.00 |
| Leasehold Premises | 2,175.00 |
| Insurance Premium paid | 150.00 |
| Plant and Tools | 13,000.00 |
| Good will | 14,756.68 |
| | $77,481.68 |

LIABILITIES.

| | |
|---|---|
| Creditors | $13,750.00 |
| Balance being net worth | 63,731.68 |
| | $77,481.68 |

(Contingent Liability—Bills Receivable discounted $2,500.00.)

ALEX. WOOD.

ASSETS.

| | |
|---|---|
| Cash Balances | $ 100.00 |
| Debtors | 25,725.00 |
| Insurance Premiums paid | 250.00 |
| Stocks | 38,250.00 |
| Plant and Tools | 17,000.00 |
| Ground and Buildings | 85,000.00 |
| Good will | 24,333.32 |
| | $190,658.32 |

LIABILITIES.

| | |
|---|---|
| Creditors (including bond of $100,000 on building) | $ 27,525.00 |
| Bills Payable | 11,600.00 |
| Bank Over Drafts | 3,750.00 |
| Bad Debt Reserves | 2,500.00 |
| | $ 45,375.00 |
| Balance being net worth | 145,283.32 |
| | $190,658.32 |

In addition to the above liabilities of Wood of $45,375, there is a contingent liability of $3,600, being amount of bills receivable which have been discounted. (I presume that the bills receivable are entirely good, but think it best to mention them as a contingent liability, as I have done; same for contingent liability of Deal.)

"The price of the combined businesses is payable, one-third in debentures and two-thirds in ordinary shares; 2,500 preference shares of $10 each are issued, on which $1 per share has been paid to provide further working capital. The limited company assumes all liabilities and takes over the book debts and other assets. No interest is payable on the purchase price." For amount of price of combined businesses, I take

| | |
|---|---|
| Net Worth of Deal as shown above | $ 63,731.68 |
| Net Worth of Wood as shown above | 145,283.32 |
| Amount capital required by limited company to take over businesses of Deal and Wood | $209,015.00 |

which is payable one-third in debentures, which will be $69,671.67, and payable two-thirds in ordinary stock, which will be $139,343.33. Two thousand five hundred preference shares of $10 each are issued, on which $1 per share has been paid to provide further working capital, which would give $2,500 preference capital paid in, and $22,500 preference capital unpaid, which I presume is to be paid in as needed by the limited company.

For (b) "balance sheet of Deal, Wood & Co., Limited, as at Oct. 1, 1906, without distinguishing between the respective interests of the vendors," I submit the following:

BALANCE SHEET OF DEAL, WOOD & CO., LTD., AS AT OCT. 1, 1906.

ASSETS.

| | |
|---|---|
| Cash Balances | $ 2,750.00 |
| Balances in Bank | 1,625.00 |
| Bills Receivable on hand | 2,250.00 |
| Debtors | 47,350.00 |
| Stocks | 60,000.00 |
| Insurance Premiums paid | 400.00 |
| Leasehold Premises | 2,175.00 |
| Plant and Tools | 30,000.00 |
| Ground and Buildings | 85,000.00 |
| Good will | 39,090.00 |
| | $270,640.00 |





LIABILITIES.

| | | |
|---|---|---|
| Creditors (including bond of $100,000 on building) | | $ 41,275.00 |
| Bills Payable | | 11,600.00 |
| Bank Over Drafts | | 3,750.00 |
| Bad Debt Reserves | | 2,500.00 |
| Debentures | | 69,671.67 |
| Capital Stock: | | |
| Ordinary | $139,343.33 | |
| Preference | 2,500.00 | 141,843.33 |
| | | $270,640.00 |

(There is a contingent liability of $6,100, assumed, which is amount of bills receivable that vendors had discounted, but it is thought that the bills receivable are entirely good and will be promptly met by the makers of same at maturity.)

As to the 2,500 shares of preference stock, I only show on balance sheet, above, amount of this stock that has been paid in; and balance due on same, records should be kept on auxiliary books, and credited to capital stock as it is paid in.—(G. Brownlee.)

New York C. P. A. Examination, January, 1902. The Smith Brewing Company, with $1,000,000 capital stock, the Young Brewing Company, with $500,000 capital stock, and the Star Brewing Company with $400,000 capital stock, agree to consolidate as the Universal Brewing Corporation, the new company to buy all the properties of the old companies at a valuation to be fixed by appraisal, payment therefor to be made in full-paid stock of the new company, the old companies to pay off their own indebtedness.

The appraised values of the old companies are as follows:

| | Real Estate and Buildings | Plant | Cash | Bills Receivable | Horses, Wagons and Harness | Office Furniture | Total |
|---|---|---|---|---|---|---|---|
| Smith | 650,000 | 390,000 | 15,000 | 10,000 | 4,000 | 1,000 | 1,100,000 |
| Young | 327,000 | 160,000 | 3,000 | 6,000 | 3,000 | 1,000 | 500,000 |
| Star | 126,000 | 71,000 | 1,000 | | 1,500 | 500 | 200,000 |
| | | | | | Total appraised value | | 1,800,000 |

On this valuation the Universal Brewing Corporation issued $2,000,000 of stock, shares $100 each, which was divided prorata among the old companies on the basis of their appraised value, no fractional shares of stock to be issued, odd amounts to be paid old companies in cash.

Give journal entries necessary to set up property accounts and credit old companies with their prorata on the books of the new company.

At the time of the consolidation the ledger accounts of the Star Brewing Company were as follows:

| | |
|---|---|
| Real Estate and Buildings | $250,000 |
| Plant | 247,000 |
| Cash | 1,000 |
| Horses, Wagons and Harness | 1,800 |
| Office Furniture | 1,200 |
| | $501,000 |
| Capital Stock | $400,000 |
| Bills Payable | 50,000 |
| Accounts | 51,000 |
| | $501,000 |

Make the proper journal entries to liquidate in stock of the new company the liabilities other than capital stock, to apportion the remaining stock and cash, and to close the books of the Star Brewing Company.

SOLUTION.

I.

Find the prorata amounts due each company of the $2,000,000 new stock issued in excess of the total appraised value, $1,800,000.

Smith.

$$\frac{11\times 200000}{18}=\$122,222.22+\$22.22 \text{ To be paid Cash.}$$

Young.

$$\frac{5\times 200000}{18}=55,555.56-\$44.44 \text{ To be Paid Cash.}$$

Star.

$$\frac{2\times 200000}{18}=22,222.22+\$22.22 \text{ To be Paid Cash.}$$

$200,000.00

Young pays Smith and Star each $22.22 cash, and the even amount of stock of the consolidated company will stand:

| | | | |
|---|---|---|---|
| Smith | $122,200 | + $1,100,000 | = $1,222,200 |
| Young | 55,600 | + 500,000 | = 555,600 |
| Star | 22,200 | + 200,000 | = 222,200 |
| | $200,000 | + $1,800,000 | = $2,000,000 |

Journal entries to open the books of the Universal Brewing Corporation:

ASSETS.

| | |
|---|---|
| Real Estate and Buildings: | |
| Smith | $680,000 |
| Young | 327,000 |
| Star | 126,000 |
| Plant: | |
| Smith | 390,000 |
| Young | 160,000 |
| Star | 71,000 |





| | | |
|---|---|---|
| Cash: | | |
| Smith | 15,000 | |
| Young | 3,000 | |
| Star | 1,000 | |
| Bills Receivable: | | |
| Smith | 10,000 | |
| Young | 6,000 | |
| Horses, Wagons and Harness: | | |
| Smith | 4,000 | |
| Young | 3,000 | |
| Star | 1,500 | |
| Office Furniture: | | |
| Smith | 1,000 | |
| Young | 1,000 | |
| Star | 500 | |
| Bonus account | 200,000 | |
| | | $2,000,000 |
| To Smith Capital Stock | $1,222,200 | |
| To Young Capital Stock | 555,600 | |
| To Star Capital Stock | 222,200 | |
| | | $2,000,000 |

STAR BREWING COMPANY.

II.

| | |
|---|---|
| Consolidated Stock | $222,200.00 |
| Cash from Young | 22.22 |
| | $222,222.22 |
| To Real Estate and Buildings | $126,000.00 |
| To Plant | 71,000.00 |
| To Cash | 1,000.00 |
| To Horses, Wagons and Harness | 1,500.00 |
| To Office Furniture | 500.00 |
| To Profit and Loss | 22,222.22 |
| | $222,222.22 |

Assets transferred to Universal Brewing Corporation in lieu of consolidated stock, plus $22.22 cash. Balance profit.

III.

| | |
|---|---|
| Profit and Loss Account | $301,000 |
| To Real Estate and Buildings | $124,000 |
| To Plant | 176,000 |
| To Horses, Wagons and Harness | 300 |
| To Office Furniture | 700 |
| | $301,000 |

To close the property accounts, the losses being the difference between the book values and the appraised values, i.e., $501,000—$200,000= $301,000.

IV.

To liquidate the liabilities, other than capital stock:

| | | |
|---|---|---|
| Bills Payable | $ 50,000 | |
| Accounts Payable | 51,000 | |
| | $101,000 | |
| To Universal Brewing Cor. Stock | | $101,000 |

1010 Shares, par value $100, transferred to creditors in full payment of all debts as per agreement.

V.

To close the books of the Star Brewing Company.

| | | |
|---|---|---|
| Old Capital Stock | $400,000.00 | |
| To Universal Brewing Cor. Stock | | $121,200.00 |
| To Cash | | 22.22 |
| To Profit and Loss | | 278,777.78 |
| | | $400,000.00 |

$222,200—$101,000=$121,200.

FINAL PROFIT AND LOSS ACCOUNT, STAR BREWING CO.

VI.

| | | | |
|---|---|---|---|
| | | Consolidated Stock and Cash from Young Co. | $ 22,222.22 |
| | | Old Capital Stock to Close Books | 278,777.78 |
| Assets | $301,000.00 | | |
| Shrinkage in values | | Loss Sustained | |
| | $301,000.00 | | $301,000.00 |

CONSOLIDATED BALANCE SHEET.

| | | | |
|---|---|---|---|
| | | Consolidated Stock— | |
| | | Smith Co. | $1,222,200 |
| Assets | $1,800,000 | Young Co. | 555,600 |
| Bonus | 200,000 | Star Co. | 222,200 |
| | $2,000,000 | | $2,000,000 |

## (148) AMORTIZATION.

A term usually applied to the purchase of bonds at a premium, the latter being extinguished by the surplus interest earned.

Also used in connection with the extinction of debts by means of the establishment of sinking funds, or the gradual wiping out, on the books, of the purchase price of a lease. In the following example the interest and depreciation is termed the amortization rate.

LEASE ACCOUNT.

| | | | Dr. | Cr. |
|---|---|---|---|---|
| 1894. | | | | |
| June 1 | Purchase price | | $11,250.00 | |
| 1895. | | | | |
| May 31 | 5% interest | | 562.50 | |





| | | | |
|---|---|---|---|
| | Depreciation | | $ 2,598.45 |
| | Balance | | 9,214.05 |
| | | $11,812.50 | $11,812.50 |
| 1896. | | | |
| May 31 | Balance forward | $ 9,214.05 | |
| | 5% interest | 460.70 | |
| | Depreciation | | $ 2,598.45 |
| | Balance | | 7,076.30 |
| | | $ 9,674.75 | $ 9,674.75 |
| 1897. | | | |
| May 31 | Balance forward | $ 7,076.30 | |
| | 5% interest | 353.80 | |
| | Depreciation | | $ 2,598.45 |
| | Balance | | 4,831.65 |
| | | $ 7,430.10 | $ 7,430.10 |
| 1898. | | | |
| May 31 | Balance forward | $ 4,831.65 | |
| | 5% interest | 241.58 | |
| | Depreciation | | $ 2,598.45 |
| | Balance | | 2,474.78 |
| | | $ 5,073.23 | $ 5,073.23 |
| 1899. | | | |
| May 31 | Balance forward | $ 2,474.78 | |
| | 5% interest | 123.67 | |
| | Depreciation | | $ 2,598.45 |
| | | $ 2,598.45 | $ 2,598.45 |

The state authorities of New York have recently required all savings banks under their supervision to carry bond investments at cost (principal and premium), and to reduce the premium by amortization so that at maturity the bonds will stand at par.

The appended example shows a serial bond of $2,000 at 4½ per cent repayable in four equal annual instalments.

| DATE | | | PAR VALUE | | TRUE INTEREST | | AMORTIZATION | | INVESTMENT VALUE | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1907 | July | 15 | 2000 | 00 | | | | | 2023 | 40 |
| 1908 | Jan. | 15 | | | 45 | 57 | 4 | 43 | 2018 | 97 |
| | July | 15 | 1500 | 00 | 45 | 23 | 4 | 77 | 1514 | 20 |
| 1909 | Jan. | 15 | | | 34 | 07 | 3 | 43 | 1510 | 77 |
| | July | 15 | 1000 | 00 | 33 | 90 | 3 | 60 | 1007 | 17 |
| 1910 | Jan. | 15 | | | 22 | 66 | 2 | 32 | 1004 | 85 |
| | July | 15 | 500 | 00 | 22 | 61 | 2 | 39 | 502 | 46 |
| 1911 | Jan. | 15 | | | 11 | 28 | 1 | 22 | 501 | 24 |
| | July | 15 | | | 11 | 26 | 1 | 24 | 500 | 00 |

### (149) AMOUNT.

The sum, total of two or more numbers or quantities; the aggregate, or value. Thus, the amount of 5 + 6, is 11. Gross amount is a term used to represent the aggregate without deduction; net amount represents the aggregate less reduction.

### (150) ANALYSIS OF LEDGER.

An expedient frequently used by accountants for the purpose of balancing ledgers where the books have been kept in a very slipshod or careless manner, and where the entries are difficult to decipher. Ruled sheets of paper are used for this purpose, separate columns being allotted to each account, the debits and credits to these accounts being entered in the proper columns from the books from which the postings have been made to the ledgers. The analysis thus becomes practically a transcript of the ledger, but obtained independently, and the accounts can then be compared with the accounts in the ledgers and all differences examined and corrected.

Columns are also provided on the analysis sheets for each book from which the postings are made, such as sales book, purchase record, cash book, journal, etc., and each posting to a ledger account is counterbalanced by an entry in the column allotted to the book from which the entry is posted.

At the completion of the analysis, the footings of the columns for sales book, cash book, etc., should agree with the totals of these books, while the total of each account should agree with the total of the amounts posted to the said account in the ledgers. A recapitulation sheet is also made of the totals of the analysis sheets, and the balances, thus obtained should agree with the trial balance taken from the ledgers.

This is a very laborious and costly process, and is only resorted to where it is evident that the books of account are in a very unsatisfactory condition. In cases where arbitrary postings have been made to the ledger, this method of checking will locate such postings by comparison of the accounts.

### (151) ANNUAL STATEMENT.

A statement prepared at the close of the fiscal, or business year, exhibiting the financial condition of the business and the result of its transactions during the period reviewed. (See Balance Sheets.)

### (152) ANNUITIES.

By an annuity is meant a periodical payment, made annually, or at more frequent intervals, either for a fixed term of years, or during the continuance of a given life or a combination of lives, as will be more fully explained further on. In technical language an annuity is said to be payable for an assigned status, this being a general word chosen in preference to such words as "time," "term," or "period," because it may include more readily either a term of years certain, or a life or a com-





bination of lives. The magnitude of the annuity is the sum to be paid (and received) in the course of each year. Thus if $100 is to be received each year by a person, he is said to have an annuity of $100. If the payments are made half yearly, it is sometimes said that he has "a half-yearly annuity of $100"; but to avoid ambiguity, it is more commonly said he has an annuity of $100, payable by half-yearly instalments. The former expression, if clearly understood, is preferable on account of its brevity, So we may have quarterly, monthly, weekly, dailv annuities, when the annuity is payable by quarterly, monthly, weekly, or daily instalments. An annuity is considered as accruing during each instant of the status for which it is enjoyed, although it is only payable at fixed intervals.

If an annuity is payable for a term of years independent of any contingency, it is called an annuity certain; if it is to continue forever, it is called a perpetuity; and if in the latter case it is not to commence until after a term of years, it is called a deferred perpetuity. An annuity depending on the continuance of an assigned life, or lives, is sometimes called a life annuity; but more commonly the simple term "annuity" is understood to mean a life annuity, unless the contrary is stated. A life annuity, to cease in any event after a certain term of years, is called a temporary annuity. The holder of annuity is called an annuitant, and the person on whose life the annuity depends is called the nominee.

If not otherwise stated, it is always understoood that an annuity is payable yearly, and that the annual payment (or rent, as it is sometimes called) is £1. Of late years, however, it has become customary to consider the annual payment to be, not £1, but simply 1, the reader supplying whatever monetary unit he pleases, whether pound, dollar, franc, thaler, etc. It is much to be desired that this course should be followed in any tables that may be published in the future. The annuity it will be observed, is the totality of the payments to be made (and received), and is so understood by all writers on the subject; but some have also used the word to denote an individual payment (for rent), speaking, for instance, if the first or second year's annuity—a practice which is calculated to introduce confusion, and should, therefore, be carefully avoided.

The theory of annuities certain is a simple application of algebra to the fundamental idea of compound interest. According to this idea, any sum of money invested, or put out at interest, is increased at the end of a year by the addition to it of interest at a certain rate; and at the end of a second year, the interest of the first year, as well as the original sum, is increased in the same proportion, and so on to the end of the last year—the interest being, in technical language, converted into principal yearly. Thus, if the rate of interest is 5 per cent, $5 improved at interest will amount at the end of a year to $5.25, or in conformity with a previous remark, 1 will at the end of a year amount to 1.05. At the end of a second year this will be increased in the same ratio, and then amount to (1.05)2.

In the same way, at the end of a third year, it will amount to (1.05)3, and so on.

We pass on now to the consideration of the theory of life annuities. This is based upon a knowledge of the rate of mortality among mankind in general, or among the particular class of persons on whose lives the annuities depend. If a simple mathematical law could be discovered which the mortality followed, then a mathematical formula could be given for the value of a life annuity, in the same way as we give above the formula for the value of an annuity certain. In the early stage of the science, Demoivre propounded the very simple law of mortality which bears his name, and which is to the effect, that out of 86 children born alive 1 will die every year until the last dies between the ages of 85 and 86. The mortality, as determined by this law, agreed sufficiently well at the middle ages of life with the mortality deduced from the best observations of his time; but, as observations became more exact, the approximation was found to be not sufficiently close. This was particularly the case when it was desired to obtain value of joint life, contingent, or other complicated benefits. No simple formula, however, has yet been discovered that will represent the rate of mortality with sufficient accuracy; and those which satisfy this condition are too complicated for general use.

## (153) ANNUITY CALCULATIONS.

These calculations depend upon well defined methods of ascertaining the incremental value of a sum of money under varying conditions, and also at any time during the "life" of the annuity, that is, the number of years or months or other periods in which a certain prescribed amount is payable by will or otherwise, so as, at the end of the payments, to amount to a given sum.

These sums are granted "in fee" (to a person and his heirs forever), for life (made a charge on an estate which is to end with the life of the donee) or for a series of years. As the interest on any one of the payments in the series thus created does not fall due till the end of the period, this incremental feature is not claimable nor payable until the second period has begun in any case, so that we thus reach the general law that the claimant is entitled to receive during any period that the annuity has been running as many times the principal as periods plus as many times the interest as there are periods less one, subject however to certain abatements founded on the rules of compound interest alluded to further along, and some "present worth" calculations which diminish this amount to a greater or less degree.

But a yearly payment say of $500 at 6 per cent simple interest amounts in six years, not to 6 times 500 plus 6 times 30, that is to $3,180, but to the sum of $500, $530, $560, $590, $620, $650 or $3,450.

As annuitants have many forms of choice as to how and when they shall take their payments from the estate, some twenty forms of calculation have arisen in reaching varying values of such "holdings" under different conditions, values of the "accrued terms," we might say. Let us take a case where, for example, a man has worked eighteen months for a farmer at $20 per month, the wages remaining unpaid till the end of the term of service, to find how much is due the workman, at 6 per cent simple interest. In this most simple form of annuity illustration, the figuring takes the form of an attempt to strike an average for two successive periods in the payment, and use that as a basis for working out the result of all the periods; that is, 20 plus 20 plus .10 times 17 (the interest at 6 per cent for one less than the real number of periods) divided by 2, gives $21.70 for the value of an "average" term, and multiplying this by the number of terms (18) we have $375.30 as the amount due.





Or, we might put it in this way: 20 times the number of months (18) plus one-half of sum of the interest increment for the time, that is, 18 times $1.70 divided by 2, giving the same result. In the same way, to use another illustration, if we have annuity of $150 running for 5½ years, payable quarterly at 1½ per cent, we would employ the formula:

(150 plus 150 plus $2.25 times 21) divided by 2 (to get the average as above) and times 22 for the entire number of periods (that is four times 5½), giving when worked out the sum of $3,819.75 as the result, as the amount of the annuity.

Now, in this connection, there arises an interesting feature of reckoning where, instead of taking two periods, one of which is, the other not an interest-bearing (accumulative) period, we are compelled to employ two periods in the reckoning, both of which are incremental in character, as in the problem where we wish to find in what time an annual pension of $500 will amount to $3,450 at 6 per cent simple interest; and the reason for the choice of two interest-bearing periods which are easily found, is that the number of periods in this case is not known; whence arises the formula:

$3,450 divided by (530 plus $560 divided by 2) plus 30 equals $3,450 divided by 575 or 6 (years) for the answer. We might derive a general working rule then as follows: Divide the amount of the annuity at the given rate by the increment for one period plus the average time for two periods, to get the number of terms.

Again, since we have here the first term of an arithmetical progression (500) the common difference (30) and the sum of the series $3,450 to obtain both the number of terms and the last term; whence arises the working formula, which is perhaps as good as any that can be devised, and it is of universal application:

"C" representing the sum of the series, "a" the first term, "b" the common difference to find "d" the number of terms and "e" the last term; then we have:

C divided by the formula (a plus b plus a plus 2 b) divided by 2 plus b, equals d (that is 6); represented in figures by the expression $3,450

divided by one-half of 530 plus 560, plus 30. The leading feature in this method is that two increment bearing terms are used instead of the principal, or the first term simply as in other solutions, and since in dividing by 2 to get the average we lose the use of one of the elements, namely the 30 that is the common difference in working out the result. we have to add it again after the reduction of the fraction 530 plus 560 divided by 2, to restore it to its place in the solution. After obtaining "d," "e" is readily found. And the formula is one of universal application in this class of problems. Taking another case to show its working, we have one where it is required to find the rate per cent at which an annuity of $6,000 will amount to $59,760 in eight years, simple interest. Now comes first the formula 6,000 plus 6,000 plus 8 times a (the unknown term) divided by 2 and the result multiplied by 8, the number of terms (which we have given), and in working it out we reach finally the apparent value of a as being 840, but restoring its real value by dividing by 2 (because the value was doubled when clearing the first equation of fractional form to aid in the solution) we have the real value of a as 420, whence 6,000 divided by 420 gives 7 per cent as the required answer.

In other cases the finding of the "valuation" of a series is of great simplicity, as where it is required to ascertain the initial value of a perpetual lease of $250 per year at 6 per cent, which is merely $250 divided by .06 or $4,166.66; but this is where the annuity is payable yearly; and if we go a step further and take cases where the payments are made at lesser periods, the solution becomes more difficult; as to find for illustration the value of a perpetual leasehold of $2,500 a year payable first semi-annually, and second quarterly, when it becomes necessary to take into consideration the fact that interest accumulates upon the yearly payment and makes necessary a larger sum to meet the required number of annuity payments than where the annuity is payable yearly; in other words, the value of the "perpetual lease" above referred to in case of quarterly payments is $2,575 divided by .06, or $42,916.66 2-3, and where payable semi-annually it is $2,537.50 divided by .06, or $42,291.66 2-3, which are the required amounts to sustain the yearly or rather the above periodical payments, and at the same time maintain the interest rates demanded in settlement of the estate in this case.

It will be noted that the value when paid annually is really the present worth of the amount paid semi-annually, as shown by dividing $42,916.66 2-3 by 1.03. To extend this principle in a slightly different direction to reach cases of a "deferred" annuity (perpetuity), and find for instance the present worth of a deferred (forborne, as the old accounts used to call it), annuity of $250 a year, deferred say 8 years at 6 per cent. After obtaining as above the present value $4,166.66 2-3 by dividing by .06, and then taking the present value as a representative of the compound interest of a certain sum which invested will produce that amount, and





dividing the $4,166.66 2-3 by the compound interest of $1 for eight years at 6 per cent, i. e., 1.5938481, we have $2,614.22 as the present value of the perpetuity which has been deferred eight years. This means the amount claimable by the beneficiary, who has been deprived for a series of years of his annual income under the above circumstances.

And so to extend the illustration of principle a little further, if it is asked to find the present value of a perpetuity of $160 a year to commence in 3 years 4 months at 7 per cent. Solution: 160 divided by .07 gives $2,285.71; then the

| | |
|---|---|
| Compound interest at $1 for 4 years at 7 per cent is..... | 1.310796 |
| Compound interest of $1 for 3 years at 7 per cent is..... | 1.225000 |
| 3) | .085796 |
| | .028598 |

Adding this to the compound interest for 3 years 1.225043 we have 1.253641 as a divisor of the $2,285.71 above obtained, yielding a result of $1,823.28 for the present value required.

It should be noted in this connection that in the drawing up of wills neither the main part of the text nor the codicils provide for the maximum amount which shall be payable in annuities with any degree of exactness, that is to say, for illustration, if a man dying leaves bequest of an annual payment of $1,500 to someone, the interest accumulations are never calculated upon, the term of years is not often exactly specified that the sum is to be paid, nor any conditions attached to its deferment on account of the absence, etc., of the beneficiary, or other reasons, nor what arrangements shall be made if the donee elects to take what will be his due for a series of years in advance, commencing at the end of such series of years to receive the annual payment under ordinary conditions again, and so on. There are some classes of cases, to be sure, where the codicil may defer the beginning of the payment for a series of years as where, for instance, it is required to ascertain the present value of an annuity of $680 to commence in 7 years and to continue for 10 years at 5 per cent, we first find the present value of $680 deferred 7 years at 5 per cent to be $9,665.27, i. e., $680 divided by .05 equals 13600, divided by 1.407,100 equals $9,665.27; present value $680 deferred 17 years at 5 per cent, $5,933.64; present value $680 deferred 7 years, and to run 10 years, $3,731.63.

But we must prepare ourselves for dealing, too, with a class of somewhat related problems, but differing in the fact that there is no provision made for the deferred "commencement" of the payment of the annuity, which is here immediate, and so necessitates a difference in the figuring;

as for illustration, where it is required to find the deferred value of an "immediate" annuity of $300 running 18 years at 5 per cent, we find as before the principal which produces the annual payment of $300 by dividing by .06; but instead of using the compound interest itself of $1 for the 18 years, we employ the interest less the principal; that is 1.4066192 not 2.4066192, and then on the calculation that this actual interest, deprived of its one dollar of principal, and representing really the accumulative features of the principal (one dollar), and using it as a means of determining what $6,000 would accumulate under the same conditions, we have for the required result the sum of $8,439.72 as the deferred value of the annuity named above. On the same principle in solving a class of problems to see what could have been saved in a given number of years under various conditions, if the savings had been permitted to accumulate annually under the compound interest principles as where, for illustration, A pays $25 yearly for tobacco, to see how much better off he would have been in 40 years had he invested the sum at 10 per cent per annum, whence the formula 45.2592556 (less $1 principal as above); that is 44.2592556 times $25, giving $11,064.81 as the answer.

Annuity tables can be purchased which will save the accountant the greater part of the trouble of calculating same for himself, when required to check up expenditures under this head, or to establish sinking funds, etc.

## (154) ANNUAL PAYMENTS OF PRINCIPAL AND INTEREST, HOW TO COMPUTE EQUAL.

To ascertain the amount of the necessary instalment to be paid at the end of each year for a given number of years to liquidate a specified principal, with interest at a stated rate:

RULE. To one year's interest upon the total principal at the stated rate, add the quotient of one year's interest divided by the compound interest upon $1 compounded at the stated rate for the given number of years. The result is the amount of the annual instalment.

ILLUSTRATION. Ascertain the amount of each instalment necessary to liquidate a debt of $20,000 to be paid in 16 yearly instalments, including interest at six per cent per annum.

| | |
|---|---|
| One year's interest at 6 per cent upon $20,000 | $1,200.00 |
| Compound interest at 6 per cent upon $1.00 compounded annually for 16 years | $1.540352 |
| $1,200 divided by 1.540352 equals | 779.04 |
| Amount of each instalment | $1,979.04 |





PROOF OF RULE.

| | | | | | |
|---|---|---|---|---|---|
| 20,000.00 | | 16,544.97 | | 9,336.47 | |
| 1,200.00 | 1st yr. int. | 1,979.04 | 6th | 500.18 | |
| 21,200.00 | | 14,565.93 | | 8,836.65 | |
| 1,979.04 | 1st payment | 873.96 | | 1,979.04 | 12th |
| 19,220.96 | bal. due at end | 15,439.89 | | 6,857.61 | |
| 1,153.26 | of 1 yr. 6 per cent. | 1,979.04 | 7th | 411.46 | |
| 20,374.22 | | 13,460.85 | | 7,269.07 | |
| 1,979.04 | 2nd | 807.65 | | 1,979.04 | 13th |
| 18,395.18 | | 14,268.50 | | 5,290.03 | |
| 1,103.70 | | 1,979.04 | 8th | 317.40 | |
| 19,498.88 | | 12,289.46 | | 5,607.43 | |
| 1,979.04 | 3rd | 737.36 | | 1,979.04 | 14th |
| 17,519.84 | | 13,026.82 | | 3,628.39 | |
| 1,051.19 | | 1,979.04 | 9th | 217.70 | |
| 18,571.03 | | 11,047.78 | | 3,846.09 | |
| 1,979.04 | 4th | 662.87 | | 1,979.04 | 15th |
| 16,591.99 | | 11,710.65 | | 1,867.05 | |
| 995.52 | | 1,979.04 | 10th | 112.02 | |
| 17,587.51 | | 9,731.61 | | 1,979.04 | 16th |
| 1,979.04 | 5th | 583.90 | | | |
| 15,608.47 | | 10,315.51 | | | |
| 936.50 | | 1,979.04 | 11th | | |

—(A. J. Conen.)

## (155) ANTICIPATING BILLS.

A term used in commerce to signify the discounting of bills—i. e., the payment of same prior to maturity in order to obtain cash discounts.

The following table will illustrate the apparent advantage of taking advantage of cash discounts, considering money as being worth 6 per cent per annum:

| | |
|---|---|
| Terms—30 days, or 1% in 10 days, cash discount | $ 1.00 |
| Interest on $100 for 20 days at 6% | .33⅓ |
| Saving in 20 days | $ .66⅔ |
| Saving in 30 days, or 1 month | 1.00 |
| Saving in 12 months, or 1 year | 12.00 |
| Saving 12%. | |
| Terms—60 days, or 2% in 15 days, cash discount | $ 2.00 |
| Interest on $100 for 1½ months at 6% | .75 |
| Saving in 45 days | $ 1.25 |
| Saving in 30 days or 1 month | .83⅓ |
| Saving in 12 months, or 1 year | 10.00 |
| Saving 10%. | |
| Terms—4 months, or 5% in 30 days, cash discount | $ 5.00 |
| Interest on $100 for 3 months at 6% | 1.50 |
| Saving in 90 days | 3.50 |
| Saving in 1 year | 14.00 |
| Saving 14%. | |
| Terms—4 months, or 6% in 10 days, cash discount | $ 6.00 |

| | |
|---|---|
| Interest on $100 for 3 months, 20 days at 6% | 1.83⅓ |
| Saving in 3 months, 20 days | $ 4.16⅔ |
| Saving in 30 days, or 1 month | 1.14 |
| Saving in 12 months, or 1 year | 13.68 |
| Saving 13 68-100%. | |
| Terms—6 months, or 5% in 30 days, cash discount | $ 5.00 |
| Interest on $100 for 5 months at 6% | 2.50 |
| Saving in 5 months | $ 2.50 |
| Saving in 12 months, or 1 year | 6.00 |
| Saving 6%. | |
| Terms—6 months, or 6% in 10 days, cash discount | $ 6.00 |
| Interest on $100 for 5 months, 20 days at 6% | 2.83⅓ |
| Saving in 5 months, 20 days | $ 3.16⅔ |
| Saving in 30 days, or 1 month | 5.59 |
| Saving in 12 months, or 1 year | 6.71 |
| Saving 6 71-100%. | |

The advantage above mentioned, however, is more apparent than real, and frequently is merely an exchange of capital and not of profit. as the customers of the business take advantage of cash discounts just as readily as the proprietor in regard to his own purchases. As a matter of fact, a wholesale house with a fair list of customers will lose more by offering cash discounts than it will gain by taking advantage of them.

The six examples shown above may be considered misleading to a certain extent, as money is worth in a business whatever profits the business makes on capital invested—that is to say, the legal rate of interest may be 6 per cent per annum, but the value of money used in a business may be worth 50 per cent per annum, so that its withdrawal for the purpose of anticipating payments would not effect an actual saving.

A question that frequently comes up in the direction of the prepayment of bills may be illustrated as follows:

Smith buys of Jones a bill of goods on January 1st, at 60 days, April 1st, 2 per cent off for cash, and 1 per cent per month off for the prepayment. Smith pays the bill January 15th, and deducts 2 per cent for cash, and 4½ per cent for four and one-half months' prepayment. Jones claims that Smith is only entitled to 2½ per cent for two and one-half months' prepayment. Who is right?

In this case, Jones is clearly right.

Smith having elected to take advantage of the 2 per cent discount, the bill becomes due for payment April 1st, or, as custom has decreed, April 10th, and he is, therefore, entitled to interest for prepayment only to the date on which he would be obliged to pay, viz., April 10th.

Reduced to dollars and cents basis, we will assume a bill of $1,000, terms as stated, April 1st dating—2 per cent cash or net 60.





| | |
|---|---|
| Amount of bill | $1,000.00 |
| 2% discount | 20.00 |
| Amount due April 10th | $ 980.00 |
| If paid January 15th, interest on this amount from January 15th to April 10th, or 85 days, at 12% per annum | 27.77 |
| Amount to pay January 15th | $ 852.23 |

It will thus be seen that the total deduction for discount is $20 and $27.77=$47.77.

The only basis on which the four and one-half months for anticipations could be used would be Smith's waiving the 2 per cent for cash privilege, in which case he might figure 4½ per cent on $1,000, or 1 per cent per month from date of payment to the maturity of the bill, or $45. As this would involve a clear loss of $2.77, it is hardly compatible with good financiering.

If Smith takes advantage of the 2 per cent for cash, he can figure interest only to the discount date.

Another question frequently arises in regard to discount being deducted from the full amount of a bill, which includes prepaid freight. Lumber is almost invariably billed at a delivered price, the consignee paying the freight, the object of billing at a delivered price being to guarantee the weight of the material, or to guarantee the rate of freight, or both. Freight is strictly a cash item, being in the nature of an advance by the consignor to the consignee, and is, therefore, not subject to discount and in such cases it is not equitable to expect the shipper to advance a certain amount of cash and have it returned to him a short time later, less discount; prepaid freight should therefore be deducted from the amount of the bill prior to the deduction of cash discount.

The following will illustrate the way in which a great many commission houses treat anticipated payments:

A bill sold on March 15th ($650), with terms of 6 per cent, 10 days, or 5 per cent, 30 days, with 60 days extra. If this bill is paid on April 1st the calculation of discount would be as follows:

| | |
|---|---|
| March 15 as May 15 | $650.00 |
| Less 6% discount | 39.00 |
| Due May 25th | $611.00 |
| Interest from April 1st to May 25th, 55 days at 6% per annum | 5.60 |
| | $605.40 |

The $39 should be credited to discount account, and $5.60 should be credited to interest account, thus showing at the end of the month, or year, the net credit secured by anticipating bills. This matter will be further considered under the heading of "Discounts."

### (156) APPORTIONMENT.

In connection with business methods is synonymous with distribution and relates chiefly to those expenses involved in the management of a manufacturing plant which cannot be charged direct against the cost of any particular product. Examples may be mentioned in unproductive labor, machine expense, light, heat, and power, general maintenance expense, general department expense, and general factory administrative expense.

The term apportionment is also used to indicate the adjustment, at time of closing books and making balance sheet, of unpaid charges accrued but not due, and prepaid unexpired charges. Examples of the first may be quoted in interest, commission and wages, and of the second in rent and insurance.

### (157) APPRAISE.

To value; to estimate the worth of.

### (158) APPRAISER.

One who sets a value upon goods; a person appointed and sworn to estimate a fixed value on goods or estates.

### (159) APPRECIATION.

A term used to describe the accretion of value to certain classes of assets which are affects by changes in the markets or other causes, accidental and otherwise. Appreciation should be credited to profit and loss only when there is a reasonable prospect of the increase in value being permanent. In the case of speculative securities, the fluctuations of which are mostly artificial, no record should be entered on the books.

If securities appreciate in value, no profit accrues unless they are sold. If securities depreciate in value, no loss is sustained unless these securities must be disposed of at that particular time.

### (160) APPRECIATION OF BUILDINGS.

Periodical appreciation may be recorded as follows:

Building.

To Appreciation Reserve Account.

Amount of estimated increase in value for period ending ——— 190—.

Such appreciation should not, generally, be available for dividends.

The alteration and repairs account should be kept separate from the building asset account. The alteration and repairs account should be disposed of:

Profit and Loss.

To Alteration and Repairs Account.

For period ending ——— 190—.

The reason for the above is that the expense of alteration and repairs is an actual expense, already paid, hence not an estimate and should, therefore, take effect in profit and loss account.

The appreciation in value of building is more or less fictitious and if





dividends were declared in one year based upon such estimated increase, subsequent periods might suffer, as the value is liable to fluctuate and stockholders of subsequent periods would lose; but after a number of years, say five years, have elapsed, showing a steady appreciation of value, a dividend might be declared against the first year's appreciation, thus reserving four years' increase.

### (161) APPROBATION SALES.

Goods delivered to customers on approval—that is, on the understanding that they may be returned without charge if found unsatisfactory.

Such sales should be kept in a separate memorandum sales book until disposed of. If the goods are retained by the customer, they should be entered in the regular sales book; if returned, a memorandum to that effect should be made in the approbation sales book.

In all large businesses where there is danger of approbation sales being overlooked, it is advisable to open an account called "Approbation Sales." To this account charge all goods sent out and credit all goods returned, and goods charged in the regular sales book. The balance of this account will thus always show the value of goods out on approbation.

Appro. & C.O.D Record

| Date | Appro. Check No. | C.O.D. Check No. | Name | Quantity | Names, addresses and Details | How disposed of — Cash Amt | On Credit Amt | Returned Amt | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1904 Dec 24 | | | | | James Thompson, Holyoke | | | | |
| | | | 5th | 1 | P. Lamb Cap | | | | |
| | | | A8 | 1 | Mink Cap | | | | |
| Dec 27 | 5 | 24 | | | J.O. Sullivan, Goshen | | | | |
| | | | 963 | 1 | Coon Coat D.I | | | | |

A special form of bill can be used in duplicate, the original being handed to the customer with the goods, and the duplicate being retained as a record. The bills can be so devised as to perform the functions of an approbation sales book as above mentioned; thus saving the labor of making entries in a bound volume.

In most businesses these departments, and the records of same, are not as satisfactory as they might be, and the attention of those who are obliged to send out goods to their patrons in this way is particularly directed to the form here presented.

Sales on approbation sometimes remain out quite a long time, and where monthly statements of business conditions are required this record will be appreciated as giving full information in the best possible way.

Regular sales checks are used by the store clerks for this class of sales, but they are printed in a distinctive color and carry a distinctive series of numbers.

In most establishments we suppose posting would be made direct to customers' accounts from the "on credit" column and the total of that column dissected into departments, and the departmental totals posted to the credit of the regular sales accounts at the end of the month.

### (162) APPROXIMATE INVENTORY.

A method of calculating inventory on hand by averaging percentages of profits on sales. (See Inventory.)

### (163) ARCHITECTS, ACCOUNTING FOR.

Architecture is defined as the art of building according to principles which are determined not merely by the end the edifice is to serve, but by considerations of beauty and harmony. Architecture thus necessitates the possession by the builder of gifts of imagination as well as technical skill, and in all works of architecture properly so-called these elements must exist and are harmoniously combined.

Both in form and pretentiousness has man's dwelling changed just as have changed the other environments of his evolution. As the changes of time made it necessary for him to seek other abodes than the shelter of caves and huts in trees, he gradually but surely drifted from the humbler to the more pretentious house that was built above, and not below, the ground.

The architecture of today, however, is not the work of a few short years. The ideas of symmetry and proportion which are afterwards embodied in material structures could not have been evolved until at least a moderate degree of civilization had been reached, while the efforts of primative man in the construction of dwellings must have first been determined solely by his physical wants.

Some architectural monuments there seem to be for each particular age, and the Egyptian pyramids, obelisks and temples, the Roman temples, amphitheaters and theaters, the Grecian temples, the Gothic architecture of England and the mosques of the Saracen countries and Arabia, testify to the grand ideas of the imaginative architects of the centuries.

In our own days we see the architectural forms of other ages imitated in our churches and public buildings. At the present time there exists no form of architecture peculiarly distinctive. But no age that has passed required of the architect a greater knowledge of the laws of building or engineering than the erection of our present sky-scraping edifices, and although they may sacrifice beauty to income production, they will at least be monuments of our strenuous days.

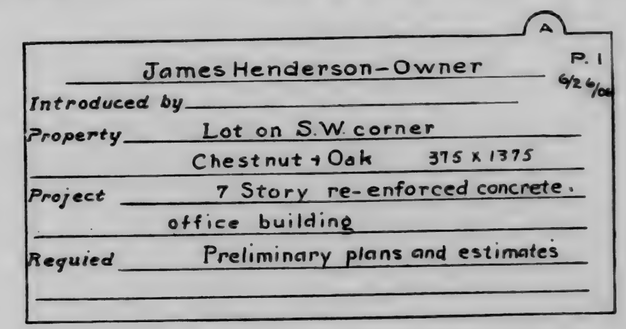
With the tremendous increase in large buildings in this country has come an evolution in the work in the architect's office, and the one-man office is steadily being succeeded by companies and partnerships, together





with branches for the handling of engineering plans in constructive work. So the offices are divided into their several departments calling for the drawing of plans, writing of specifications and superintending of construction. In addition, where expert work is to be done, and there is no such expert connected with the office, outsiders are hired and paid in proportion to the nature of the questions to be solved.

I submit in connection with these remarks a number of forms and their descriptions, so that the work of the architect's office may be followed. Upon calling at the architect's office the prospective builder gives a general idea of what his project is, and this is entered on the card, Form A-1, which is a concise expression of just what Mr. Builder wants to


A

James Henderson–Owner P. 1
6/26/04

Introduced by

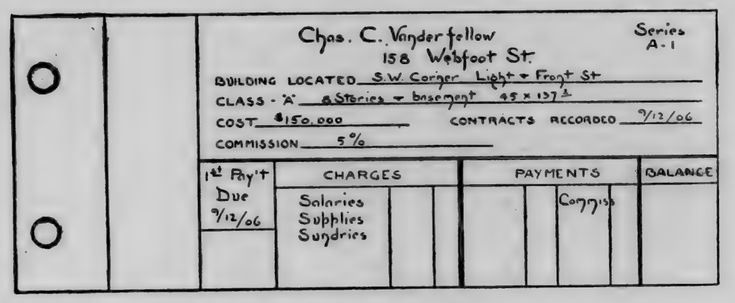
Property Lot on S.W. corner
Chestnut + Oak 375 x 1375

Project 7 Story re-enforced concrete
office building

Requied Preliminary plans and estimates

do. If the owner has no definite idea as to the number of rooms or style of building he generally leaves the general get-up to the architect, telling him the limit to the amount of money to be expended. An agreement also is reached as to compensation, but the usual fee charged is five per cent of the value of the work. Preliminary sketches are then drawn so that an estimate of the cost may be reached. This estimate, however is not binding in any way upon either of the parties, and is given so that the owner will know just about how far his money will build, or how much money he will require for a given number of flats, stories in commercial building, or whatever the nature of the project may be. Before rents are fixed the exact estimates must be on hand, as first estimates can be exceeded as high as one-third when the contractors finally get their bids in.

This phase of the business is well illustrated at the present time in San Francisco, where, on account of the tremendous price of materials and both the scarcity and high price of labor, it is almost impossible for a contractor to do any work at all. All estimates, of whatever the character of building, are being exceeded by the proportion above quoted and


Chas. C. Vanderfellow
158 Webfoot St.
Series A-1
BUILDING LOCATED S.W. Corner Light + Front St
CLASS - A 6 Stories + basement 45 x 137½
COST $150.000 CONTRACTS RECORDED 9/12/06
COMMISSION 5%
1st Pay't Due 9/12/06
CHARGES
Salaries
Supplies
Sundries
PAYMENTS
Comm'ss
BALANCE

some are even doubled, so high are materials and labor at the present time.

If the estimate is acceptable to the builder, the architect goes to work on the preliminary sketches and drawings, and all correspondence between the two is filed away, together with the cards relating to the particular job. By this time the job has been given its distinctive number and letter, such as A-1 or A-3 as the case may be, and all further drawings, correspondence or the cards for filing, take that letter and number. Forms A-2 and A-3 illustrate this part of the process, showing the dates of meeting, when drawings are to be completed and turned over to owner, and such other information of importance to show when and how the building is started.

| NAME | No | Date of Visit | Date to Drafting Room | Date from Drafting Room | Date to Owner | Remarks | Series No. |
|---|---|---|---|---|---|---|---|
| James Anderson | P.1 | 6/26/06 | 6/27/06 | 6/29/06 | 6/30/06 | Rush | A.1 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

For the carrying out of the architect's ideas of building, it is necessary that detailed drawings be given the contractor for the various parts of the building. When a contractor, or the owner, takes a drawing from the architect's office he must sign a receipt for same on back of Card 1, the idea being to eliminate any dispute as to whether or not the contractor got a certain drawing from the architect for this or that part of the structure.





Architects' Estimate for Office Building or Warehouse. For this the architect makes a rough sketch of floor plan or section through walls, taking off the quantities necessary for construction of same.

For example such would be the itemized account:

Excavating, grading and concrete.
Brick work.
Carpenter work.
Plumbing.
Painting.
Wrought iron and steel.
Cast iron.
Various sundries and minor details.

When quantity is ascertained, same is figured at current prices with which the architect is supposed to be familiar, thus being able to arrive at almost an accurate cost estimate. If the owner then figures 10 per cent advance over this, he will be fully protected.

In figuring estimate on flats, the cost per cubic foot is figured on similar building and the cubic feet in new building, multiplied by this cost per cubic foot in previous structure. In this case due allowance must be made by architect of any change in price of materials.

A cross filing system for the cards, one for names of builders and the other for job numbers and series, is used to systematize the office work.

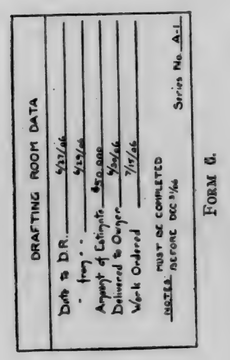
The work in the larger offices is divided into three branches. The drafting room takes care of all the drawing of plans. The specifications department writes up the details of the building as planned, and the superintending department does the overseeing work, taking the place of the personal supervision of the head of the firm in this respect. Accounts are kept through the cash book with each of these departments to segregate the cost of running the office.

Various contractors are usually invited to put in bids, based on the specifications that are given them. The lowest bidder generally gets the job, but it is within the province of the owner to reject any or all bids and call for new ones. A record is kept by the architect of each contract and of each contractor working on the job. This is illustrated by Cards 2 and 3, Card 2 showing dates of commencing, completion and notice to owner, and Card 3 showing the dates of payment to the contractor. Card 4, together with Forms x-1 and x-2 gives the details of the notices to the various contractors.

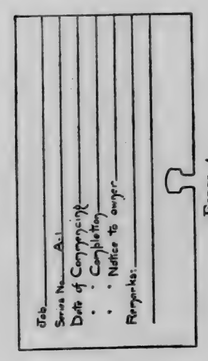
Payments are made to the latter according to the nature of the contract, but a written certificate from the architect to the effect that such payment is due is necessary before the owner will make such payment.

The main features of the contract are:

1—Parties signing.
2—Time.




FORM 6.

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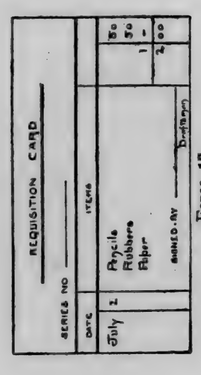


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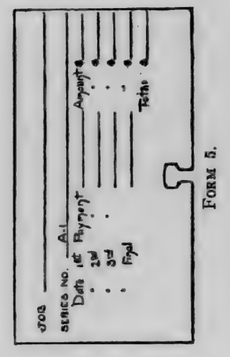
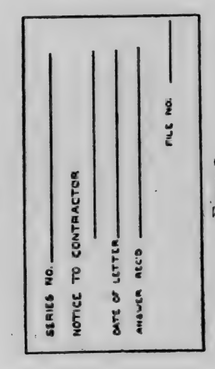
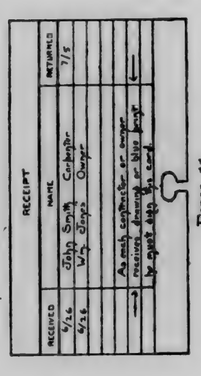


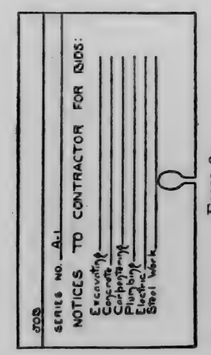

FORM 5.



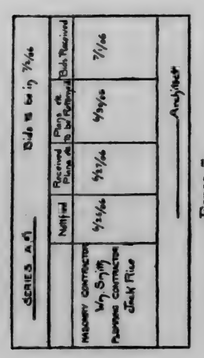

FORM 8.



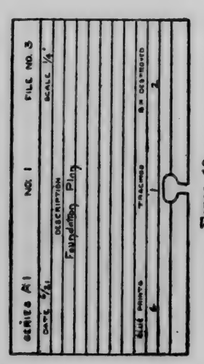

FORM 11.




FORM 9.




FORM 7.




FORM 10.





3—Furnishing of detail drawings and materials to be furnished in accordance therewith.
4—Added time for unpreventable delays.
5—Location of building.
6—Amount and time of payments.
7—Delay in paying by owner.
8—Carrying out of work including changes in plans.
9—Selection of umpire in case of disputes.
10—Damages for delay on contractor's part.
11—Damages to building by act of God to be borne by owner to the extent of what has been paid.
12—Payments on account are not an acceptance of the work, but owner must exercise due diligence in looking for and reporting defective parts.
13—Where contractor refuses to supply proper workmen and material, owner may do so and deduct a reasonable amount from the contract price.

Draftsman _____ Week Ending 6/29/06

| SERIES | NO. | MON | TUES. | WED. | THUR. | FRI. | SAT. | SUN. | Total Hours | Per Day | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 1 | 4 | 8 | 8 | 2 | 8 | — | | 30 | 6 | - | 22 | 50 |
| A | 2 | 2 | — | — | — | — | ⑥ | | 10 | 6 | - | 7 | 50 |
| A | 3 | 2 | — | — | 6 | — | — | | 8 | 6 | - | 6 | - |
| | | | | | | | | | | | | 36 | 00 |

FORM 13.

Generally where a commercial building is to be erected there is considerable correspondence to do with the owners of adjoining property to the effect that as improvements are to be made to the property adjoining theirs, excavating of same to be carried to a certain depth below the sidewalk, they should take steps to underpin and protect their property. A record of these notices is kept in a file, together with other correspondence relative to the building.

Five per cent is the usual fee of the architect for his work; two and one-half per cent is the amount of the first payment which is due when the contracts are signed and recorded. The balance is paid at such time as the work progresses or at such time as the owner and the architect may agree. The final payment is not made until after the building is completed.

Architects receive extra compensation for furniture and other articles purchased under their direction. Also for the drawing of plans for monuments, cabinets or decorative works.

Fees are often received from the municipal, state and national governments for competitive drawings, and it is usual in such cases to pay both the successful and unsuccessful competitors in proportion to the nature of the competition. Private and public universities and similar institutions quite often call for competitive drawings for additions to their buildings or new buildings, the same being passed upon by a jury of awards.

Consultation fees received by architects depend greatly upon the professional standing of the architect and the amount and character of the work. In cases where an owner becomes dissatisfied with the work of the

**RECORD FOR CLERK OF WORKS**

BUILDING MATERIALS

Series
Building at
Class of Bld'g.

| Date | From Whom | Kind | Value | Amount | |
|---|---|---|---|---|---|
| | | | | | |
| Total | | | | | |

LABOR

| Week Ending July | No. Men | Class of Labor | Days Worked | Per Day | Total |
|---|---|---|---|---|---|
| | | | | | |

FORM 14

**CASH BOOK—DR.**

| Date | From Whom | Job No. or Fees | Pay't No | Amount | Bank |
|---|---|---|---|---|---|
| | | | | | |

**CASH BOOK—CR.**

| Date | Item | Sundry | Supplies Accounts | General Office Expenses and Salaries | | | General Administrative Expenses | | | Bank |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Drafting | Specifications | Superintendence | Drafting | Specifications | Superintendence | |
| | | | | | | | | | | |

FORM 15.

original architect it is usual and customary to appoint consulting architects to whom the owner looks for the carrying out of his work in the proper and best manner.

"CLERK OF THE WORKS." Where a large undertaking is under way, one that calls for the constant attendance of an overseer, a man is employed by the owner to check the delivery of all materials and payments for labor. He is called the clerk of the works. The record that he is to keep should show the delivery of all material used for the construction of the edifice, how many men are employed and what they receive, and that the class of materials is just what the specifications call for. This protects





the owner from the delivery of substituted articles of lower grades than those contracted for.

The presence of a clerk of the works, however, does not absolve the architect from visiting the building and seeing that it is being erected according to the plans and specifications, and he has the power to order out any material that is not right.

When the contractor considers his work completed he notifies the architect in writing to that effect and that he is ready for acceptance.

CERTIFICATE FORM FOR CONTRACTORS TO BE PRESENTED TO OWNER

SAN FRANCISCO, .....1906.

To....., owner.

This is to certify that the sum $5,000....00, 100 Five Thousand and.....00,00 Dollars is due.....contractor, being the payment for.....

..... , Architect

Received payment,

....., Contractor

*Stub Signed by Contractor.*

No.....

Series.....

To.....

FORM 16.

The date of this is recorded on Card 2. The architect and the contractor visit the building together, inspect it thoroughly, and if the work is satisfactory to the architect who is acting as the agent of the owner, he gives the contractor a certificate to be presented to the owner for payment, and also notifies the latter to file his notice of the completion of the work. Final payment is not made until the notice of completion is given.

"The architect will maintain strict watch on the building materials and the workmanship on the buildings, and his visits will be of such frequency and duration as are necessary for accomplishing the purpose. But the architect's superintendence will not include any liability nor will he be responsible for any breach of contract by the contractor."

As the contractor is under bonds the owner is protected in the event of the former not carrying out his work properly.

The main accounts in the office work will be for salaries and office expenses and the receipt of fees. The debit side of the cash book showing such receipts also shows the number of the payment. The credit side is divided to show the expenses of the three departments the work is divided into.

Supplies that are used in the office are given out only on a signed

requisition, each one of which shows the job the draftsman is working on. These are charged to that account, together with salaries. Each weekly time sheet shows the number of hours that a draftsman puts in on a job and also the time that the specifications or superintending departments devote to it. To offset these charges are the fees received, the idea being to show as closely as possible the cost and return on each job. General office or administrative expenses are approximated on the direct charges. —(*L. Joseph.*)

### (164) ARITHMETIC.

The science of numbers; the art of computation by figures.

The sign of addition is derived from the initial letter of the word "Plus." In making the capital letter, it was made more and more carelessly, until the top part of the P was placed near the center, and hence the plus sign was finally reached.

The sign of subtraction was derived from the word minus. The word was first contracted into "mns" with a horizontal line above to indicate the contraction; then the letters were omitted, which left the short horizontal line. The multiplication sign was obtained by changing the plus sign into the letter X. This was done because multiplication is a short method of addition.

Division was formerly indicated by placing the dividend above a horizontal line and the divisor below. In order to save space in printing the dividend was placed to the left and the divisor to the right, and a dot was written in the place of each.

### (165) ARITHMETIC (AMUSING).

A term employed to signify devices in the combination of figures by which surprising results are apparently obtained without effort. These devices are, however, of no practical value in commerce or mathematics. We append some illustrations.

ADDITION. In this case the operator asks for a line of figures and sets them down as per line of the example. Underneath this line the operator writes another, adding sufficient to the figures in the first line to make 9's of each pair of figures. (See second line.) The operator now asks for another line, which is set down under the first two lines, adding a fourth line to make pairs of 9's as before. The operator then obtains the fifth line of figures, which is called the key line. By subtracting 2 from the last figure on the right and placing a 2 in front of the first figure on the left, the total is obtained.

For three pairs of lines deduct 3 from the last figure on the right-hand and prefix 3 to the first on the left, and so on, with four pairs of 9's, etc.





FIRST EXAMPLE.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 8 | 5 | 3 | 6 | 2 | 8 | 1 | 2 | 7 |
| | 5 | 1 | 4 | 6 | 3 | 7 | 1 | 8 | 7 | 2 |
| | 7 | 2 | 1 | 2 | 8 | 6 | 5 | 8 | 3 | 4 |
| | 2 | 7 | 8 | 7 | 1 | 3 | 4 | 1 | 6 | 5 |
| | 8 | 2 | 4 | 3 | 1 | 1 | 0 | 7 | 5 | 6 |
| — | — | — | — | — | — | — | — | — | — | — |
| 2 | 8 | 2 | 4 | 3 | 1 | 1 | 0 | 7 | 5 | 4 |

SECOND EXAMPLE.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 8 | 5 | 3 | 6 | 2 | 8 | 1 | 2 | 7 |
| | 5 | 1 | 4 | 6 | 3 | 7 | 1 | 8 | 7 | 2 |
| | 7 | 2 | 1 | 2 | 8 | 6 | 5 | 8 | 3 | 4 |
| | 2 | 7 | 8 | 7 | 1 | 3 | 4 | 1 | 6 | 5 |
| | 8 | 2 | 4 | 3 | 1 | 1 | 0 | 7 | 5 | 6 |
| | 1 | 7 | 5 | 6 | 8 | 8 | 9 | 2 | 4 | 3 |
| | 7 | 2 | 1 | 8 | 2 | 6 | 3 | 5 | 8 | 4 |
| — | — | — | — | — | — | — | — | — | — | — |
| 3 | 7 | 2 | 1 | 8 | 2 | 6 | 3 | 5 | 8 | 1 |

THIRD EXAMPLE.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 8 | 5 | 3 | 6 | 2 | 8 | 1 | 2 | 7 |
| | 5 | 1 | 4 | 6 | 3 | 7 | 1 | 8 | 7 | 2 |
| | 7 | 2 | 1 | 2 | 8 | 6 | 5 | 8 | 3 | 4 |
| | 2 | 7 | 8 | 7 | 1 | 3 | 4 | 1 | 6 | 5 |
| | 8 | 2 | 4 | 3 | 1 | 1 | 0 | 7 | 5 | 6 |
| | 1 | 7 | 5 | 6 | 8 | 8 | 9 | 2 | 4 | 3 |
| | 7 | 2 | 1 | 8 | 2 | 6 | 3 | 5 | 8 | 4 |
| | 2 | 7 | 8 | 1 | 7 | 3 | 6 | 4 | 1 | 5 |
| | 1 | 2 | 2 | 4 | 5 | 5 | 6 | 5 | 1 | 8 |
| — | — | — | — | — | — | — | — | — | — | — |
| 4 | 1 | 2 | 2 | 4 | 5 | 5 | 6 | 5 | 1 | 4 |

Or, the first line may be made the key line, pairing the lines of 9's underneath.

MULTIPLICATION. Multiply the following example as directed:

72
78
—
5616

Multiply the upper right hand figure by the lower right hand figure, $2 \times 8$, and place the product 16, in the answer. Then add 1 to the lower left hand figure, and multiply the upper left hand figure, $7 \times 8$, and place the product, 56, in the answer, to the left of the other two figures making a total product of 5616.

Apply this rule to the following examples:

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 88 | 92 | 85 | 44 | 87 | 46 | 74 | 77 | 55 | 99 | 65 | 58 |
| 64 | 98 | 85 | 82 | 83 | 44 | 76 | 46 | 73 | 64 | 65 | 52 |

Multiply the following example as directed:

36
76
—
2736

Multiply the upper right hand figure by the lower right hand figure, $6 \times 6$, and place the product, 36, in the answer. Then multiply the upper left hand figure by the lower left hand figure, $3 \times 7$, and add to this product the lower right hand figure, which equals $21+6=27$; place this product in the answer to the left of the other two figures, making a total product of 2736.

Apply this rule to the following examples:

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 37 | 73 | 56 | 49 | 37 | 64 | 87 | 65 | 64 | 82 | 75 | 37 |
| 44 | 66 | 56 | 69 | 88 | 99 | 27 | 45 | 44 | 22 | 35 | 88 |

Multiply the following as directed:

| | | | |
|---|---|---|---|
| 27 | 56 | 63 | 46 |
| 92 | 84 | 44 | 24 |
| 1814 | 4024 | 2412 | 824 |
| 67 | 68 | 36 | 28 |
| 2484 | 4704 | 2772 | 1104 |

Multiply the right hand figures together, and place the product in the answer. Next, multiply the left hand figures together, and place the product to the left of the preceding. Then multiply the diagonal figures together, the upper left by the lower right, and the upper right by the lower left, and add these products together, and place them under the first line, with the right hand figure in the place of 10's. The sum thus obtained will be the correct answer.

Apply this rule to the following examples:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 27 | 56 | 74 | 47 | 63 | 29 | 26 | 46 | 41 | 71 | 95 |
| 92 | 84 | 98 | 63 | 44 | 47 | 43 | 24 | 28 | 97 | 27 |

In the first example the short cut is due to the fact that the diagonal figures multiply together and added as above give, in the example worked out, $72 \times 78=5616$, a sum of 700 ($8 \times 70 + 70 \times 2$), which is equal to $1 \times 700$, and this added to $70 \times 70=4,900$, is the equivalent of $7 \times 700 + 1 \times 700$, or $80 \times 70$. The same explanation applies to the second class of examples under this head, $88 \times 64$, where the upper figures are the same and the lower are complements of each other.

In the second example of the above, the first case, $36 \times 76=2736$, is of two numbers, having the right hand figures alike and the left hand figures complements of each other. In this case the multiplication and addition of the diagonal figures gives $6 \times 30 + 70 \times 6=100 \times 6$ or 600, which is exactly what is done in following the process prescribed. In the class of examples shown by the second case, the upper figures being complements of each other and the lower figures alike, the result is the same, but, if the multiplier and multiplicand change places the example will be brought under the first head.

Neither first nor second examples can be applied to the examples under the third example.

Another illustration of multiplication, where there are two figures in





both multiplicand and multiplier, or three figures in multiplicand and two in multiplier, is as follows:

72
78
5616

$8 \times 2=16$, then $8 \times$ second figure of the multiplicand, $7=56$; then second figure of multiplier $7 \times 2$ first figure of multiplicand$=14 \times 56 + 1$ carried from $16=71$. We then take the two second figures of multiplier and multiplicand and multiply $7 \times 7=49 + 7$ carried from $71=56$. Answer, 5616.

Take $36 \times 76$ and apply the same rule as in the first example and we have 2736. So with $27 \times 92$, $56 \times 84$, $63 \times 44$. When there are three figures in multiplicand and two in multiplier, the following rule should apply. Example: $732 \times 68=49776$. Rule—Multiply first figure of multiplicand by first figure of multiplier and we have 16; put down 6 and carry 1. Then multiply first figure of multiplier by second figure of multiplicand$=24$ added to product of second figure of multiplier times first figure of multiplicand (12) we have $36 + 1=37$. Then multiply second figure of multiplier by second figure of multiplicand (18) plus the product of first figure of multiplier times third figure of multiplicand (56) equals $74 + 3$ carried from $37=77$. Then multiply the second figure of multiplier by third figure of multiplicand (42) and add 7 carried from 77 equals 49. Thus we have 49776 as the answer. This rule can never fail if correctly applied.

If there are three figures in both multiplicand and multiplier the following rule applies:

236
417
98412

Multiply the first figures of multiplier and multiplicand and we have 42. First figure (7) of multiplier times second figure of multiplicand (21) added to product of second figure of multiplicand times first figure of multiplicand (6) equals $27 + 4=31$. Then add products of second figures of multiplier and multiplicand and (3) first figure of multiplier times third figure of multiplicand (14); third figure of multiplier times first figure of multiplicand (24) equals $3 + 14 + 24=41 + 3$ carried from $31 =44$. Then add products of second figure of multiplier times third figure of multiplicand (2) third figure of multiplier times second figure of multiplicand (12) equals $14 \times 4$ carried from $44=18$. Then multiply third figure of multiplier and multiplicand (8) plus 1 carried from 18 we have 9. Answer 98412.

To multiply by aliquot parts of 100, add two ciphers and divide whatever fraction of 100 the multiplier is. Thus $28 \times 25$ is ¼ of 100.

4)2800
700 Ans.

These rules are easy, and when once fixed in the mind are never lost.

Attention has been called to the number 142857, which is odd in more senses than one.

If we multiply it by any number, from 1 up to 6, we arrive at products expressed by exactly the same figures as the original. Not only so, but with the exception that a different figure leads off each time, the order of the figures is the same.

142,857 multiplied by 1 is the same
142,857 multiplied by 2 is 285,714
142,857 multiplied by 3 is 428,571
142,857 multiplied by 4 is 571,428
142,857 multiplied by 5 is 714,285
142,857 multiplied by 6 is 857,142

With this multiplying by 6, the strangeness stops, though the result of multiplying the number by 7 gives the rather odd number, 99,999.

### (166) ARRANGEMENT OF ACCOUNTS.

(See Classification.)

### (167 ARREARS.

An amount overdue and unpaid, as, arrears of rent; arrears of salary, etc.

### (168) ASSEMBLING OF COSTS.

The proper assembling of the costs of various operations of various departments is by no means of the least importance in devising an efficient system of cost recording as on this depends, to a considerable extent, the value of the records for subsequent reference or comparison.

There cannot, of course, be any hard and fast rule laid down, because what would be necessary in one establishment would be waste of time and energy in another.

In some cases it is found convenient to issue sub-orders to the foremen of the different departments and to assemble all particulars on the main production order. In other cases the amount of detail is so large as to necessitate a specially arranged cost record.

In other cases where the operations are very simple and few it is considered sufficient to enter the particulars from time and material cards direct to a cost summary, computing the percentages of shop expense at the time of entry.

At this point we will endeavor to explode a very common fallacy with which we frequently come in contact.

The unprogressive cost accountant, as well as the unprogressive general accountant, has a way of taking the position that what we present may be all right for some people, but he has no personal interest in it because the information is not suitable to the requirements of the concern with which he is at the moment connected.

If he is employed at a furniture factory he doesn't want to know any-





thing about the operations of a foundry because the information is of no use to him, etc. And yet, tomorrow the furniture manufacturing company may, from one reason or another, go out of business and the unprogressive accountant is turned loose on the field of business with a good recommendation to anyone desiring assistance in that particular line of business.

Just then a large foundry concern needs a competent cost accountant and will engage the man who can convince them of his general knowledge of progressive and up-to-date cost accounting principles. But our unprogressive example is unable to apply his knowledge to any other business than that in which he has been previously employed.

One would scarcely think it necessary to publish any reasons why the accountant should acquire the greatest variety of information possible, but we frequently meet those whose vision is entirely limited to their environment.

One method of assembling costs is by the use of an item or specification sheet which covers all the operations to be performed and gives quantities and kind of material to be used and machines that must be operated in the process of production, a separate column being provided for each machine so that the labor is conveniently sectionalized. Thus a form of this nature may contain columns for smithing, punch, lathe, planer, miller, drill, and also for work at bench and in the assembling or fitting room. At the foot of the form space will be provided in which to note when the article is to be ready for assembling—to be tested, and shipped.

This item or specification sheet is made in duplicate, the latter being kept in the main office. As the particulars are entered on the original they are copied on the duplicate, thus furnishing the general manager information each day as to the exact progress of each job.

Another form of assembly record is arranged with separate columns for departments of production such as Shop No. 1, Shop No. 2, etc., and contains a complete record of the general or overhead expense to be borne by each department, the items being assembled after the following order:

| DIRECT CHARGES. | DIFFUSED CHARGES. |
|---|---|
| Material. | Unproductive labor. |
| Direct labor. | Power. |
| | Depreciation. |
| | Supplies. |
| | General expense. |
| | Heat. |
| | Light. |

A comparison is then made between the total charges and the standard cost unit.

Another form of assembly record is by parts, each part having a distinctive number.

This is, of course, in connection with machines manufactured in large quantities, the cost of each part being compared with the standard units established.

The same kind of record is also used in the boot and shoe manufacturing business where each upper, for example, should cost just the same as any other upper, while the labor in connection with cutting, fitting, lasting, trimming, finishing, etc., is also governed by established standard units.

In some establishments a cost record is also arranged as to contain full details of material used and labor performed, while a space is provided at the right hand of the form for a summary which will include all indirect expense.

The assembly sheet for a silver mine is arranged on the basis of the number of tons of ore mined, milled, or concentrated and is quite a formidable array of statistics, the totals of which, divided by the number of tons, must conform to the standard unit per ton.

The number of different departments in the building and contracting business is quite surprising, consisting of:

| | |
|---|---|
| Excavating. | Stair work. |
| Mason work. | Plastering. |
| Cement work. | Painting. |
| Stone work. | Roofing. |
| Carpenter work. | Heating. |
| Lumber. | Electric work. |
| Mill work. | Glazing. |
| Hardware. | Tile—Bathroom—Mosaic. |
| Sheet Metal work. | Structural Iron work. |

## (169) ASSESSMENT.

A specific sum levied or assessed; a levy on stockholders based on their holdings of stock, for the purpose of raising additional capital with which to carry on the business, make up deficiencies, cover losses, make improvements, etc.

A valuation of property by which the amount of taxation is determined; called an assessment roll.

The levying of assessments on stockholders is usually subject to certain conditions embodied in the corporation laws of the different states, and the state law must therefore be consulted when an assessment is under consideration by the directors of a corporation. These legal provisions limit the amount of assessment which may be levied in different cases, but as a rule whenever the full amount of capital stock has not been paid up it is permissible to levy the full amount unpaid in case the corporation finds itself unable to discharge its liabilities. It sometimes occurs that corporations are organized with the understanding that the stock subscribed need not be paid until required by the necessities of the business.

A notice of assessment should contain full particulars as to authority by which levied, amount, when and where payable, and to whom, with a penalty for failure to comply therewith.





The following is an example of a form of assessment notice which may be used:

NOTICE OF ASSESSMENT.

The .....Company, a corporation—principal place of business ..... County, .....

Notice is hereby given that at a meeting of the Board of Directors of said Company, held on the ..... day of ....., 1 ....., an assessment, No. ....., of ..... dollars and..... cents (.....) per share was levied upon the capital stock of the said corporation, payable ..... to ..... at .....

Any stock upon which this assessment shall remain unpaid on..... 1....., will be delinquent and advertised for sale at public auction, and unless payment is made before, will be sold on....., 1....., at .... o'clock M., to pay the delinquent assessment, together with costs of advertising and expenses of sale. .....Secretary.

Office ..... .....

Dated.....190....

## (170) ASSESSMENT RECORD.

Where assessments are levied by a corporation, a special record of same should be kept after the following form:

So far as the accounting necessary on the general books in regard to an assessment is concerned, the best plan is to open an assessment account, to which the total amount of the assessment as shown by the assessment record will be charged, "capital stock" being credited with an assessment for unpaid stock, and "working capital" credited with an assessment levied to make good losses or to meet emergencies. As the assessments are paid cash will be charged, and assessment account credited.

## (171) ASSETS.

Property, possessions, resources. A real account representing intrinsic value. All property—realizable or unrealizable, real or contingent, upon which a value can be placed. "An expenditure upon a remunerative object."

Assets are credits of the concern owning them, and form the basis of the credit such concern receives from the commercial community.

Assets are considered as debits on ledger and trial balance, but in making up balance sheets, it is best to ignore the debit and credit element, and to consider only assets in contradistinction to liabilities. Thus the make up of the balance sheet may be arranged to suit the convenience of the maker as follows:

Assets — Liabilities.

or

Liabilities. — Assets.

or

Assets.
Liabilities.

or

Liabilities.
Assets.

ASSETS AND EXPENSES. Assets may be represented by cash on hand, inventories, accounts receivable; expenses by advertising, stationery, postage.

The difference between asset accounts and expense accounts is really one of degree. In purchasing merchandise, for instance, cash is exchanged for something of equal value which can in turn be exchanged for cash by the purchaser. In purchasing advertising, or circulars for distribution, cash is exchanged for something the results of which are generally indirect and uncertain.

Stationery, stamps, etc., actually on hand at date of taking inventory, are assets; the amounts expended and used represent an expense which reduces the profits of the business.

One writer, therefore, differentiates assets and expense as follows:

An asset account is charged with something received, and represents property on hand, maintaining or increasing capital invested.

An expense account is charged with something disbursed, and represents expenditures which decrease or impair capital invested.

Assets may be differentiated into:

FIXED ASSETS.—Are those which form a permanent and essential part of the business carried on, and the returns on account of which are not direct, but are received through the manipulation of circulating assets. This is the reason for the distinction made in the Individual Home Study Course in Higher Accounting, by a division into two classes, viz.:

a. The property of the merchant prepared to do business.

b. Values obtained with original capital for purposes of re-sale.

Fixed assets are capital investments.

Examples:

| | | |
|---|---|---|
| Right of Way. | Poles. | Construction. |
| Road Bed. | Wires. | Sinking Funds. |
| Real Estate. | Furniture and Fixtures. | River Dam. |
| Buildings. | Patterns. | Coke Ovens. |
| Equipment. | Engines. | Abattoirs. |
| Machinery. | Boilers. | Car Ferries. |
| Cars. | Meters. | Station Buildings. |

ACTIVE OR FLOATING ASSETS. Those which vary in amount from day to day from sale, realization, exchange, etc., commodities purchased for re-sale or business circulation. Active assets are trading investments.





Examples:

| | |
|---|---|
| Cash. | Inventories of all kinds of Mdse. on hand for sale. |
| Accounts Receivable. | Diamonds. |
| Notes Receivable. | Liquors. |
| Grain. | Stocks and Bonds. |
| Ice. | Boots and Shoes. |
| Coal. | |
| Raw Material. | |

WASTING ASSETS. These are usually classified as fixed assets, but a distinction is made because the more, for example, a mine is worked, the less ore or coal remains, so that while the mine was, in the first place, a capital asset (on which the capitalization of the mining corporation was based) at the end of a certain period the mine will be exhausted and only the equipment, plus a hole in the ground, remains to represent the investment.

The best method of dealing with wasting assets will be considered under the specific heading.

PASSIVE ASSETS. These possess no intrinsic or realizable value, and in many cases simply consist of prepaid charges, preliminary corporation organization expenses, etc. As this class of charge is usually incurred for the benefit of business operations, not for one year only, but for many future years, it is considered proper and equitable to spread the extinction over several years so that the burden will not fall with too great weight on the business of one year:

Examples:

| | | |
|---|---|---|
| License. | Bonus. | Copyright. |
| Charter. | Promotion. | Deputation. |
| Franchise. | Legal Expense. | |

Further examples are:

ACTIVE ASSETS. Bolts of cloth in a tailor shop ready to be made up into suits.

FIXED ASSETS. Shoe lasts in a shoe manufacturer's plant. Sample photographs in a photographer's studio.

PASSIVE ASSETS. Futures: The amount invested in stock where market values fluctuate from day to day. Advertising devices, being amounts expended on signs advertising a certain article.

Theater Privilege: Being an amount paid to a city by a company for the privilege of carrying on a place of amusement.

## (172) ASSIGNEES' ACCOUNTS.

The accounts of assignees, receivers and trustees are similar in nature and arranged on the same general principles. An account has to be kept of the assignor's property, showing how realized, and an account must also be kept of receipts and expenditures of the assignee, who charges himself with all receipts and takes credit for all authorized expenditures and remuneration for his services. A record must also be kept of all claims

against the assignor's estate, such claims being properly proved before being allowed to rank for dividend. This record is ruled so as to show—amount of claim; amount at which claim is admitted; amount disallowed; amount of dividends; when paid; creditors' receipts.

### (173) ASSIGNED ACCOUNTS.

Accounts assigned to a bank or other party for the purpose of realizing on same before they become due.

As this method of discounting accounts receivable is not very common, we will illustrate it as follows:

We will assume that W. H. Hunt & Co. have $12,000 out in accounts receivable, distributed as follows: Smith & Co., $2,000; Jones & Co., $4,000; Brown & Co., $6,000. Wishing to raise immediately say $8,000, they communicate with their bankers, and having obtained their consent Forty-two

to the loan, copies of each bill (representing the $12,000) are made in duplicate, and on the back of each is indorsed the usual "for value received we do hereby transfer, set over, etc." A statement is attached to each firm's bills, making each account complete. All the firms whose accounts are being assigned are then notified by Hunt & Co. of the fact, and the bills assigned are specifically mentioned. The bills are then sent to the bank accompanied by addressed and stamped envelopes, in order that they may have as little trouble as possible in the matter. This completes the preliminaries.

The bank then makes a demand note for the amount of the loan ($8,000), which embodies the collateral on which the loan is made, i. e., Smith, Jones and Brown's accounts, it being understood that the bank does not loan on the accounts but on the note, which is signed by Hunt & Co., and their account is then credited by the bank and loan account charged.

Hunt & Co., first making a journal entry crediting Smith, Jones and Brown and charging assigned accounts, which is really an account against the bank. The reason for this entry is very plain. The moment the assignment is made to the bank, that moment the accounts of the three customers are settled as fully as though they had mailed checks for the proper amounts, so far as they are concerned; but as a matter of fact the amounts are still "accounts receivable," the only change being the source from which the payment is to be received.

Cash is then charged with $8,000 and the item is credited to loan account. Some might prefer calling this account bills payable, which is perfectly proper; but it has been found more desirable to separate it from the trade notes. The accounts affected by the above entries then stand as follows:

SMITH & CO.

| | | | | | |
|---|---|---|---|---|---|
| Nov. 20 | Mdse | $2,000 | Nov. 26. | Asgmt. | $2,000 |

JONES & CO.

| | | | | | |
|---|---|---|---|---|---|
| Nov. 15. | Mdse. | $4,000 | Nov. 26. | Asgmt. | $4,000 |





BROWN & CO.

| | | | | | |
|---|---|---|---|---|---|
| Nov. 15. | Mdse. | $6,000 | Nov. 26. | Asgmt. | $6,000 |

ASSIGNED ACCOUNTS.

| | | | | | |
|---|---|---|---|---|---|
| Nov. 26. | Smith & Co. | $2,000 | Nov. 26. | Brown & Co. | 6,000 |
| Nov. 26. | Jones & Co. | 4,000 | | | |

LOAN ACCOUNT (FIRST NAT'L BANK).

| | | | | | |
|---|---|---|---|---|---|
| Nov. 26 | | $8,000 | | | |

CASH.

| | | | | | |
|---|---|---|---|---|---|
| Nov. 26. | Loan | $8,000 | | | |

The bank receives Smith & Co.'s check for $2,000. They pass it to the credit of Hunt & Co. exactly the same as a deposit made in the regular way. Then a subsequent entry is made, charging H. & Co., and crediting loan.

Hunt & Co. do exactly the same thing, i. e., charge cash and credit the bank (assigned accounts) and then credit cash and charge loan account.

These are the methods applied by the borrower and lender. When the $8,000 has been received by the bank, it closes out the loan and makes up interest charge, which is deducted from the regular deposit account of Hunt & Co., the papers relating to the assignment and the note are all returned, and subsequent payments from Smith, etc., are received by the bank and credited up as straight deposits, while Hunt & Co. credit such payments to assigned accounts until it is closed.

### (174) ATTORNEYS, ACCOUNTING FOR.

The following forms with explanations will show a simple yet accurate system for keeping accounts in an attorney's office. By means of special column cash-journal and fee book the moneys earned will be separately shown, together with details of expense accounts for running the office. The ledger will be one of separate sheets for each and every case, of sufficient size to enter all the details of any case or suit so that reference need not be made to any other book. Law offices at best are poorly equipped for book-keeping so that simplicity and original entry must be the dominating features of a successful system.

Together with the regular account system, there is added a combination journal-ledger for keeping accounts with estates in course of settlement. The pages for this book are so ruled that the income and expenditures will be shown in original form, no other books being necessary for entries. The balance of the cash on hand is shown by the "bank balance" column as all money is immediately deposited in bank and withdrawn by check only. No cash accounts with estates are therefore necessary in the general cash book except for the receipt of the fees.

In connection with this book a small memorandum estate book is kept in which is entered all the details of the will together with the separate pieces of property, real or personal, that are a source of income or expenditure so that reference can be made to this book from the journal-ledger

pages, where it would be impracticable to spread all this detailed information.

The operation and description of the office system is as follows:

(1) Office blotter or slate for details of new matter coming up.

(2) Card calendar for laying out daily work.

(3) Cash-journal for receipts and expenditures; also money advanced to clients for costs of suits and money received from them in return.

(4) Single sheet three column ledger to contain costs in detail in debit column, credit money paid, and balance column for amount due.

(5) Fee book for charging fees. Made out with duplicate extension sheets from which entries are posted. Extension sheet with columns for the several kinds of fees charged so that the total may be ascertained at end of month for posting.

(6) Journal-ledger designed for estates to be used in connection with the foregoing. Debit side has wide column for receipts from all sources, bank column and bank balance column. Credit side has wide column for all expenditures, bank check column and column for all fees allowed by court.

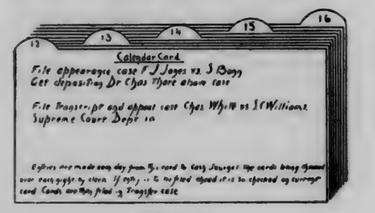
Original entries will be made on office blotter, fee book, and calendar cards and posting made thence to cash-journal or ledger and credited or charged in ledger when affecting personal accounts. Totals only of representative accounts posted monthly.

Office slate is used by the entire office force. Card calendar is kept up by clerk keeping the accounts from memoranda furnished by the office clerks. Cards are arranged by days and can be filed ahead for any day or month. Cash is to be paid out on receipts or vouchers only. Clerks receiving money to be used for payment of costs of any client's account must give personal receipt for which the money is paid is turned in. The petty cash (for which column is provided in the cash-journal) embraces such items as car fare, entertainment, etc., a check to be drawn each month for as much as the account is estimated and the adjustment to be made monthly from details gained from petty cash memorandum book. New ledger accounts are opened from the details as written on office slate.

MONDAY-Nov. 14-1904.

| Visitors Name | Called in Interest of | Interviewed by | Remarks | Entered |
|---|---|---|---|---|
| | Office Slate. | | | |

Form 1.




Form 2.





Representative Accounts. Client's accounts, payments—debited for moneys advanced and credited when same are repaid, balance showing amount due for advanced moneys.

Client's accounts, fees—same as above.

Fee account—credited monthly with total as added in fee book.

Office furniture and library account—the library in law offices is quite an important feature not alone on account of the value of the books, but because there is a constant expense attached to the maintenance of the current reports from all over the United States. To the account charges will be made for all new books added. Rebinding and depreciation to be charged to expense and loss accounts respectively.

Administrative expense—as per form showing the details of expenses for running expenses.

Cash account and proprietor's account will complete trial balance accounts.

The office slate—in diary form, each day having a page. Designed especially for parties calling in event of new cases or consultation. In

| Date | Name | Clients Payments | FEES | | | Bank |
|---|---|---|---|---|---|---|
| | | | Estate and Consulting | Referee | Trial | |
| | | Journal Cash Book Dr | | | | |
| Totals | | | | | | |

Form 3—Right Hand Page.

| Date | Name | No. | Payments Clerk Arch | Office Furniture and Library Account | Administrative Expenses | | | | | Bank | Sundries |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Rent | Clerk hire and Stenographer | Printing and Stationery | Postage Telephone Telegraph | Fees and Expenses | | |
| | | | | Journal Cash Book Cr | | | | | | | |
| Totals | | | | | | | | | | | |

Form 3—Left Hand Page.

addition, every call affecting the office work should be entered. In the remark column should be entered any special information gained in the interview. The entered column is for the use of the clerk keeping the accounts and is checked as items are written off.

Card calendar—used in connection with office slate; a great many entries being made immediately from slate to cards for the day required. In addition original entries are made on the cards and posted thence to ledger and cash-journal as indicated. The current day's card is carefully gone over by the clerk at end of day and if a memorandum is found for future work it is transferred to the card of that day. The used cards are kept in transfer boxes arranged monthly.

Cash-journal—the debit column contains name of client, amount of money received in return for that advanced for costs, payment of fees charged and bank column. The fee column is divided into respective fees

| | Consulting | Retainer | Trial |
|---|---|---|---|
| San Francisco, Cal. 11/14/08 | | | |
| Mr J. S. Johnson | | | |
| To trial fee case of | | | |
| J S Johnson vs Fred Brown | | | 150 |
| $150 00/100 | | | |
| Chas. Wilcox, Attorney | | | |

Fee Book - with perforated sheets with duplicate page extending out from original and ruled for Amount and kind of fee charged.

Form 5.

so that data is always on hand showing how much of each kind of fees charged is being paid. Totals are credited to client's account in the ledger. The total of clients' payments is credited at end of month to that ledger account.

Credit side shows name of client and column for moneys paid for costs with a number column which is the designation of the kind of cost, as follows: Have a printed schedule of all costs likely to be used in connection with all suits and cases so that when the detailed cost charge is entered in the ledger debit column all that it is necessary to enter in the cash book credit side is the number of the cost item and the amount. This saves duplication. The costs in civil and criminal cases are always the same as far as caption is concerned, so that the schedule can be easily used. Total costs advanced charged to debit of client's account payment, in ledger. Office furniture and library account charged for new material and subscriptions. Administrative expenses are for the carrying on of the office work and include rent, clerk hire and stenographers, printing and stationery, telephone, telegraph and postage, petty cash for incidentals. The bank column for checks drawn and column for sundries (including proprietor's personal account) completes the credit side.

Estate of
In Probate Court Of
Terms Under Will

See Will Book For Details
Pages 1-10.

| Date | Receipts from All Sources | Bank | Bank Balance |
|---|---|---|---|
| | Regn<br>Sale of personal property at Real Estate<br>Int on money in bank Dividends on Stock etc.<br>Dr<br>Form for Journal Ledger for keeping out of Estate in course of distribution | | |

Form 6.

| Date | Payments All Accounts | Bank | Fees Allowed by Court |
|---|---|---|---|
| | Repairing real property<br>Collecting of regn etc<br>Notes due<br>Appraisers fees<br>Payments to legatees<br>Administrators fees<br>Journal Ledger Estate<br>Cr | | |

Form 6.

Ledger—each case has a separate page. The account is headed with name of party, date of first visit (from office slate) with all details necessary to a ready grasp of the steps that have been taken in connection with the case. Costs as charges being entered in detail, the ledger page shows the account in such form that no reference is necessary to other books.





Fee book—made in check book form with the under duplicating sheet extending out from the original and ruled with columns for entering the amount of fee charged so that same can be added at end of month and posted in total to ledger account. Used with carbon and entry made from carbon copy, original going to client as bill.

Journal-ledger for estates with bank column is so ruled that all the details concerning the income and expenditure of an estate in course of settlement can be entered without the use of any other books. The receipts are entered in the bank column and immediately deposited making the debit charge to cash. All payments being made by check on bank and entered in bank column (Cr.) the bank balance column shows the amount of cash on hand so that no other cash entries are necessary. Estates usually take eight to ten months for settlement, the final entries being the amounts distributed to legatees and the fees allowed by the court for administering. In connection with this book keep a memorandum estate book that shows the details of the will governing the distribution of the estates with the value of the separate pieces of property, names of legatees, etc., manner of distribution, and such items as are necessary for a complete understanding of the course to be pursued. The fees allowed by the court to the attorney (proprietor) will go through the regular office cash-journal as other fees do.

Name
Date First Visit
Nature of Case
Court Assigned to
Court Appointed to

Final Disposition

| Date | Book | Fees Chgd and Costs Paid | Dr. | Date | Book | Cr. | Balance |
|---|---|---|---|---|---|---|---|
| | | 1- Filing & appearance<br>2- " Suit<br>3- Putting case on cal'dr<br>4- Subpfgn Witnesses<br>5 Depositions<br>6 Transcript of testimony<br>7- Jury Fees<br>8- Reporters fees<br>9- Notary<br>10- Process Agency<br>11- Subpg & intervening writs<br>12- Prosecution of appeal & Sub Cr<br>13- Printing Opening brief<br>14- " Reply<br>15 Prosecution & Conducting of appeal<br>16- Printing Transcript<br>17- Filing Transcript and Appeal<br>18 Printing briefs & certificates<br>19- " reply brief<br>20 Sundries | | | | | |

Form 4.

The net earnings of the business will be shown by gross fees charged during year, less administrative expenses, expense of maintaining library and office, depreciation on books and furniture. Close this amount into attorney proprietor account and when his withdrawals are deducted it will give the present worth.

There are some offices that do not make a practice of advancing costs for clients, making the clients pay the costs of the case as it progresses. This, of course, makes the book-keeping much simpler, but with the above system any sized office can be accommodated and it is simple yet accurate enough to show the earnings of the same.—(*L. Joseph.*)

## (175) AUDIT.

The examination of books of account to determine their accuracy, and the honesty of those interested.

The objects of an audit have been defined as follows:

1. The detection of technical errors.
2. The detection of errors of principle which do not affect the accuracy of the figures.
3. The detection of fraud.

Another authority states that the principles which should govern an audit are:

1st. The obvious principle that the books should be thoroughly examined and found to be in balance and all payments correctly vouched. In my humble opinion, no partial audit of a company's affairs is satisfactory.

2nd. An exhaustive survey of the results from past standpoints (where there are any), and any serious discrepancy noted with a view to careful inquiry.

3rd. An intelligent and conscientious review of the assets (and upon these an auditor of any experience and ability to gather information ought to form some definite opinion), in order to ascertain to the best of his judgment the true financial position. It is clearly laid down that where the services of an outside and independent valuer are employed, the auditor cannot go behind his certificate, but I suggest that in his report he should set out the fact of an outside valuation. But it appears to me that the auditor is not wise to accept the certificate of anyone inside the company, without making such examination as is possible, within the bounds of his experience.

## (176) AUDITING.

The method employed or work performed in accomplishing an audit.

The Scope of an Audit. In considering this subject we have to take into account the fact that it has by no means been authoritatively defined as to exactly what an efficient audit should cover. There has been considerable diversity of opinion as to the extent of probing which the term "auditing" should embrace, some maintaining that an audit should trace every entry to its original source, while others consider the verification of the trial balance from the books to be sufficient. It is often very difficult to convince a merchant of the value of the work for which he will be called upon to pay, and in such cases what may be termed "a condensed method of auditing" may be used, which will of course be subject to modifications made to suit the special conditions encountered. Such a condensed method of auditing will be hereafter described in detail.

Checking Postings to Ledger. A great many auditors consider it necessary to check in detail the postings to the individual accounts receivable and payable, but it is usual in this country to take the ground





that if the general or representative accounts are found correct, no manipulation of the individual or personal accounts could remain undetected. The auditor does not devote any time to satisfying himself that a bill of goods bought by John Jones has been charged in error to John Smith. When John Smith gets the bill he will promptly attend to the rectification of error. The postings to customers and purchase accounts, however, are checked in bulk. The auditor satisfies himself that the total amount of charges called for by the sales book has gone into the ledger, as also the total amount of credits called for by the cash book, etc. As the trading statement will show the gross and net sales and purchases, there is very little chance of falsifying the merchandise account so that the falsification will not be detected.

Books to be Audited.—These will comprise customers ledgers, purchase ledger, general or private ledger, cash book, petty cash book, cross-entry journal, purchase journal, sales journal, credit journal, pay roll, bills receivable book, bills payable book, trial balance book and any other extraordinary book, or books of original entry, from which postings may be made to the ledger, or the totals of which may be transferred from the auxiliary books to a book from which postings are made to the ledger. The importance of paying attention to the last mentioned detail can be illustrated by an accountant's experience in an audit where it was only accidentally discovered that the book-keeper used an auxiliary or "blotter" cash book, from which he transferred each day the items to the regular cash book, from which they were posted to the ledger. This "blotter" being examined, a comparison with the regular cash book disclosed the fact that the book-keeper had changed the entries so that for years he had been putting in his pocket not less than $10 every day, making fictitious credits to conceal the defalcation in the ledger, said credits being duly entered in the journal.

Statistical Reports and Exhibits.—From the books above mentioned the auditor compiles the following statements and exhibits, which, as a rule, will cover all the desired information. Where investigations are made for a special purpose the whole trend of the audit will naturally be directed along the special line and special statements will, in all probability, be required.

1. Trial balance at commencement of period covered by audit.
2. Trial balance at close of period covered by audit.
3. Trial balance after closing the books.
4. Balance sheet, or statement of assets and liabilities.
5. Trading statements. Departmentalize as much as possible.
6. Profit and loss account.
7. Analysis of expense account and comparative statement when possible.
8. Statement showing analysis of merchandise account as appearing on the ledger (where a merchandise account is carried).

9. List of bad or suspense accounts.
10. Schedule of bills receivable.
11. Schedule of bills payable.
12. Schedule of missing vouchers.

Check-Marks.—It is usual for the auditor to use a distinctive check-mark by which he can readily distinguish his completed work. Some accountants, however, state that they make a point of accomplishing their work without placing a mark of any kind upon the books audited. This seems, however, to be a very risky method and would not be advisable unless the books audited were in the sole charge of the auditor during the examination. Particularly is this true where books of account are subject to a partial audit which is supposed to keep the work as much as possible up to date until the accounts receive their final checking. In order to prevent alterations being made after the books have been checked in this way, some accountants adopt a special form of check-mark upon all figures upon which a correction may appear. They afterwards look back over their work for corrections, erasures or alterations in order to see that nothing of the kind appears without the special check-mark. This special check-mark should be as much like the regular check-mark as possible, so that the book-keeper may not recognize the distinction.

Cash and Bank.—The first task of an auditor upon undertaking an audit is usually to check the cash account both on hand and at bank according to the balance shown in the cash book. If some time has elapsed since the books were closed, add to the cash balance on hand the footings of all disbursements since that date, deduct the footing of the receipts, and the balance should agree with the cash on hand at date of closing as shown by the cash book. It should be particularly noted that no check for currency has been drawn but not entered on the cash book for the purpose of making up the amount which should be on hand.

An audit is much facilitated when all receipts are deposited in the bank, and in any case it is useful to compare deposits made in bank with the receipts as shown by the cash book for the purpose of locating any large differences which need investigation. It has often happened that dishonest cashiers have deposited amounts in the bank, omitting to enter same on the books, thus enabling them to appropriate a similar amount from the receipts which are entered on the books.

Purchase Accounts.—It has been indicated above that accounts with creditors are frequently checked in bulk and not in detail. It will, however, be necessary for the auditor to take particular notice that there has been no opportunity to charge purchases for employes to merchandise or expense accounts.

Vouchers.—The auditor should call for vouchers, not only for every expenditure entered on the cash book, but also for credits and allowances entered on the journal, the latter being fruitful ground for entries made to cover defalcations. There should also be vouchers for deductions from the





amounts of customers' bills for freight, discount, etc. In a well ordered office such deductions are always O. K.'d by a responsible person who guarantees their accuracy to the auditor. The vouchers should be turned over to the auditor in order of date, and it is best also that they should be in numerical order. This, however, comes under the head of improvements which an auditor can generally suggest in his report.

Discount.—Where the information can be readily ascertained the auditor will allow for the usual cash discounts on both sales and purchases in making up his statements. Trade discounts must always be deducted, but this class of accounts is usually posted to the ledger "net."

Fraudulent Error.—The detection of irregularities forms a large part of an auditor's duty, and he must always be on the watch for "clues" which may lead to discoveries.

Customers' Accounts.—In cases of suspected embezzlement of collections, statements should be mailed to all customers with a request that they verify the balance shown as owing.

Arbitrary Entries.—One of the most trying conditions encountered by the auditor is when transfers are made from one account to another without originating from any book of original entry or when simple postings are made in the same manner. Such entries must necessarily cause a large amount of trouble and the auditor will know how to deal with them in his report. The proprietor of a business should promptly deal with such matters, as it is he who pays the bill.

Location of Errors.—The detection of irregularities in books of account forms a large part of the duties of the auditor and accountant, the auditor exclusively employed by a large corporation, or the independent public accountant.

One of the peculiarities of accounting in the United States commercial houses is that they prefer to have their books made of a paper on which erasures can easily be made without detection. Any sign of erasures, therefor, should be considered with suspicion, and the entries carefully followed up and checked back.

The transfer of footings from page to page should also be carefully watched, as this is a frequent hiding place for peculations. It is a very common trick with fraudulent book-keepers or cashiers to bring footing forward accurately in the first place until the cash book has been scrutinized by the proprietor. After he has found everything all right, he is not likely to look at those particular entries or that particular page again, and the footings brought forward can, therefore, be safely reduced on the receipt side or increased on the payment side.

Vouchers should be demanded for all payments entered in cash book or petty cash book, and also for all journal credits to customers, etc., such vouchers to be properly O. K.'d by some responsible official who at the time was cognizant of the transaction. Six months hence no person in the business will be able to recollect why certain payments were made if no

receipts can be found for same, or no authorized vouchers. A system of vouchers for journal credits should always be instituted for the reason that receipts may be diverted into the book-keeper's pocket and entered in the journal as a credit for goods returned, or for all allowances, or something of that kind. An embezzlement is more frequently connected with a clever manipulation of merchandise account than with anything else.

Deductions from remittances on account of freight, expressage or discount are frequently taken advantage of, the amounts of said deductions being increased and the amount of the remittance decreased. These petty frauds are extremely difficult to locate, and can only be checked up by filing remittance letters as vouchers in order of date, so that even if all such letters are not compared with the entries a judicious selection can be made which will probably determine the fact as to whether the entries are correct.

Another favorable location for embezzlement is in the pay roll of a large manufacturing concern, unless proper precautions and safeguards are adopted. It will be found quite possible to overcharge the wages earned by workmen who are in collusion with the superintendent, to insert "dummy" names, or for the cashier himself to foot up the pay roll sufficiently incorrect to give him a "rake-off" when he enters the wages paid in the cash book. The proper method of preventing defalcations of this kind is to have a complete system of record from the time the workman enters the factory until he leaves; an automatic machine to register his arrival; a job record book in which a clerk will register the work he is engaged on; a cost ticket on which the workman will enter time occupied and material used on each job; cost summary from which another clerk will make up the total labor from the cost cards and the amount due each workman; a pay roll book to be kept by another clerk which shall bring the labor of the different jobs together for each man, and will show the amount due him, the amount which may have been advanced him, and the balance due on pay day. A form of receipt should then be issued to each workman showing the amount he is to receive, and on his presenting this form, duly signed, at the cashier's desk, he will be paid.

There may also be irregularities in making deposits in the bank, outside of such irregularities as taking a few hundred dollars in currency to deposit and taking the train for Canada instead. Cases have been known in which deposits have been short for quite a lengthy period of time, the amount in the bank pass-book being made to agree with the amount shown on the books of account by omitting one or two entries toward the close of the month when the balance is taken. The only way to detect such intentional mistakes is, of course, to carefully compare the payments as per cash book, or check stub, with the payments entered in the cash book and to check the balance of cash on hand and at bank as shown by the cash book with the actual cash on hand at unexpected intervals, afterward depositing the





whole amount on hand in the bank so that there will be an accurate basis for further investigation if found desirable.

Another method of embezzlement often employed is by paying invoices of goods purchased twice. This can easily be prevented by a good voucher system by which the bills to be paid are all attached to the voucher, and each bill is stamped by the officer who O. K.'d them as he reviews them. These bills cannot then be brought before him again because of the indorsement upon them, and in case a duplicate bill should be presented it would be the officer's duty to carefully investigate the matter before sanctioning its payment.

Every invoice, also, before being presented for O. K. to the treasurer, should bear the O. K. of the shipping clerk, as being received in good order; of the superintendent (if it is a factory); or of the department manager (if it is a business divided into departments); of the purchasing agent in regard to price; and of the book-keeper so far as accuracy of computation is concerned.

The misappropriation of cash sales occurs very frequently in business houses where strict and proper methods of precaution are not used. The salesman may pocket the cash sale when receiving the money from the customer, or the cashier may pocket it on receiving the money from the salesman. The best method of protecting the merchant from this class of fraud is to use triplicate cash sales tickets, and to advertise to every customer that a receipt is given for every sale. This practically compels the salesman to make out a ticket for the customer. The salesman retains one of the carbons and hands the other to the cashier with the money. In case of an investigation the salesman's tickets and the cashier's tickets are compared. Both sets of tickets should be numbered and filed away consecutively.

The best method to prevent defalcations in the keeping of petty cash is to have that duty performed by an assistant cashier, providing him with a separate book with which to enter his transactions. A check should be drawn to his order, which he will enter in the petty cash book as a receipt. At certain intervals he will account for all moneys expended to someone appointed to receive his report, and on this account being O. K.'d he will receive a check for the amount of his expenditures which will make the amount of cash in his hand equal to the amount originally given him. In the general ledger an account will be opened with the petty cashier, charging him with all checks for which he is responsible, and crediting him with the amount of his expenditures, the difference showing each month the balance he has on hand.

There are, of course, a number of other methods of making intentional errors for the purpose of concealing fraud, but it is impossible to attempt to describe them all, and the foregoing may be considered interesting examples which may be useful reading to anyone whose duty it is to supervise or check up the work of others.

The responsibility of the auditor for errors or defalcations unlocated has been a matter of considerable discussion, but the general conclusion appears to be that he is not bound to do more than exercise reasonable care and skill. He does not guarantee that the books correctly show the position of a company's affairs, but he does guarantee that his investigation has been perfect to the best of his abiltiy and that his findings have been arrived at in the most careful and bona fide manner possible.

The Valuation of Assets on the Balance Sheet.—The responsibility of the auditor for the values set down in a statement of assets and liabilities has not yet been defined in this country, and the auditor will, as a rule, take the values as he find them, incorporating in his report such criticism and recommendations in regard to same as he may think best. This refers exclusively to an audit performed for the purpose of verifying the accuracy of books of account. Where an examination is made for intending purchasers of a business all values must be analyzed in detail, and only what are considered to be actual current values accepted of assets known to exist as represented.

Depreciation.—It is the auditor's duty to see that proper provision is made for the depreciation of fixed assets, and that bad debts are eliminated from the statement of assets. Whether he will establish a reserve for bad and doubtful debts will depend upon the general conditions of the case.

Charges for repairs should be carefully watched; as it is quite usual for merchants to treat them as capital expenditures instead of as a charge to revenue for maintaining present values.

This subject will be considered at length under its proper heading.

Verification of Profits.—There has been considerable discussion as to the scope of an accountant's work when engaged to verify the profits of a business, some maintaining that it does not include an examination as to the accuracy of the books of account from which the profits are determined.

The only way, however, to verify a statement of profits made is to determine the truth of the figures from which such a statement is compiled, i. e., those figures which affect the trading, and profit and loss accounts.

With regard to this important subject, which hinges so much upon the value of certain supposed assets which go to make up the alleged surplus shown by the books, such as accounts receivable (either trade or loans), etc., it may be well to quote the following:

"It is no part of an auditor's duty to give advice, either to directors or to shareholders, as to what they ought to do. An auditor has nothing to do with the prudence or imprudence of making loans with or without security. It is nothing to him whether the business of a company is being conducted prudently or imprudently, profitably or unprofitably. It is nothing to him whether dividends are properly or improperly declared, provided he discharges his own duty to the shareholders. His business is





to ascertain and state the true financial position of the company at the time of the audit, and his duty is confined to that. But then comes the question: How is he to ascertain that position? The answer is, by examining the books of the company. But he does not discharge his duty by doing this without inquiry and without taking any trouble to see that the books themselves show the company's true position. He must take reasonable care to ascertain that they do so. Unless he does this, his audit is worse than an idle farce. Assuming the books to be so kept as to show the true position of the company, the auditor has to frame a balance sheet showing that position according to the books, and to certify that the balance sheet presented is correct in that sense. But his first duty is to examine the books, not merely for the purpose of ascertaining what they do show, but also for the purpose of satisfying himself that they show the true financial position of the company."

Unearned Profits.—It is a part of the auditor's duty to see that no unearned profits on uncompleted work, or on sales booked for future delivery are included in the period covered by the audit. One method of treating uncompleted work is to include the credit for a completed contract —for instance—and to open an account entitled "reserve for unfinished contracts," and charge to this account the estimated cost to complete. This applies only to contracts in an advanced stage.

Condensed Auditing System.—Verify the cash balance at date of commencement of audit with balances found in ledgers. On suitably ruled paper open accounts with all general ledger accounts and adjustment accounts with customers and purchase ledgers. Post up these accounts from cash book and cross entry journal, and post totals from purchase sales and credit journals to their respective representative accounts. Where the books are well kept and separate columns used for the different ledgers and for heavy posting accounts (such as cash sales, cash purchases, ex-

SUMMARY OF ABSTRACT LEDGER

| Names of Accounts | Abstract Folio | Balances July 1st 1898 | | Postings for 3 mo's ending Sept 30th 1898 | | Balance Sept. 1st 1898 | |
|---|---|---|---|---|---|---|---|
| | | Debits | Credits | Debits | Credits | Debits | Credits |
| Capita | | | 10 0 0 0 0 | | | | 10 0 0 0 0 |
| Accounts Payable | | | 1 6 7 6 2 85 | 1 2 4 0 0 05 | 1 4 6 7 6 28 | | 1 9 0 5 1 08 |
| Bills Payable | | | 1 5 0 0 0 | 5 0 0 0 | 7 5 0 0 | | 1 7 5 0 0 |
| Cash on Hand + at Bank | | 1 6 7 5 0 33 | | 2 7 0 3 2 40 | 1 8 4 0 1 24 | 2 7 9 8 1 39 | |
| Accounts Receivable | | 2 7 2 9 6 13 | | 1 2 8 4 8 73 | 1 8 6 5 7 33 | 2 1 4 8 7 53 | |
| G. Harris | | 1 0 3 5 0 | | 3 5 0 | | 1 0 7 0 0 | |
| Bills Receivable | | 7 5 6 0 0 | | 7 9 0 04 | 3 1 7 5 40 | 5 1 1 4 64 | |
| Real Estate | | 4 5 0 0 0 | | | | 4 5 0 0 0 | |
| Goodwill | | 1 0 0 0 0 | | | | 1 0 0 0 0 | |
| Horses + Wagons, Etc | | 3 8 5 5 04 | | | | 3 8 5 5 04 | |
| Furniture + Fixtures | | 5 0 0 0 | | | | 5 0 0 0 | |
| Mdse | | | 1 0 4 7 23 | 1 4 7 5 4 87 | 1 3 3 5 3 62 | 3 5 2 05 | |
| Pay Roll | | 2 8 1 2 50 | | 1 6 3 6 17 | | 4 4 4 6 67 | |
| Interest | | | 1 0 0 3 71 | 3 3 13 | 1 1 0 15 | | 1 0 6 0 72 |
| Discount | | 2 5 0 75 | | 1 0 2 50 | | 3 5 3 25 | |
| Expense | | 3 0 1 9 14 | | 3 0 0 | | 3 3 1 9 14 | |
| | | 13 3 6 3 5 79 | 13 3 6 5 3 79 | 7 5 8 7 6 03 | 7 5 8 7 6 03 | 13 7 6 1 1 81 | 13 7 6 1 1 81 |
| Total Cash Debits | | 2 7 6 3 2 40 | | 1 8 4 0 1 24 | Total Cash Credits | | |
| Total Journal " | | 2 9 8 4 2 41 | | 2 9 8 4 2 41 | " Journal " | | |
| Cash Bal July 1st | | 1 6 7 5 0 33 | | 2 7 9 8 1 39 | Cash Bal Sept 30th | | |
| | | 7 0 2 2 5 04 | | 7 6 2 2 5 04 | | | |

penses, etc.) this work is extremely simple, and easy to perform with speed and accuracy.

In a case of very old-fashioned book-keeping, where everything is jumbled up in one column on the books of original entry, it is a more difficult process, and necessitates great care.

After completing this auditor's ledger, or abstract, draw off the balances from same and compare with the balances shown on the book-keeper's trial balance. Locate the source of every difference and note all errors found, such as personal accounts charged to non-posting column, etc., accompanying same with entries necessary to correct. The customers' ledger balance accounts will agree total sales and other ledger debits with sales and cross entry journal, total cash and other ledger credits with cash book and credit journal, and the resulting balances will agree with the total of the ledger balances as per trial balance. The purchase ledger balances will be checked in the same manner.

To obtain this comparison, on a sheet of suitably ruled paper write out the following data:

From the trial balance at commencement of audit the debit and credit balances, taking sales and purchase accounts in totals. From the auditor's abstract ledger in adjoining columns, the total debit and credit postings for the period audited. In columns next adjoining draw off new trial balance and agree with that of the book-keeper.

To the total credit add cash on hand at close of books. To the debits add cash on hand at commencement of audit. The debits and credits will then agree. Compare with total debits and credits from cash and journals. This will catch errors of footings, simple or counterbalancing.

Close out accounts to profit and loss, and draw up statement of assets and liabilities. Check footings of all columns of cash book and journals the totals of which were taken into the abstract. Check footings of pay roll and compare with cash book. Check footings of petty cash book. Check bills receivable book with bills receivable account, and verify inventory of bills on hand. Check bills payable book with bills payable account. Have bank books balanced at bank, and verify balance on hand at close of books after listing all unpaid checks. Check vouchers for all payments by cash or check, and make a list of vouchers not produced. Some auditors consider the checks themselves as sufficient vouchers for payments through bank. Call for vouchers for journal credits and allowances. Prepare report and necessary financial statements.

Whenever possible the auditor should endeavor to satisfy himself that all receipts have been entered in the cash book, but it is rare to find a business house possessing a record which can be satisfactorily checked or that will take the trouble to keep such a record. Should it fall within the duty of the auditor to balance the books, this is best accomplished by making each ledger self-proving by means of adjustment accounts.

Corporation Auditing.—The audit of the books of a corporation





involves the examination and verification of capital, debenture, and dividend accounts. To accomplish this, the company's minutes must be perused and their effect noted, and a report made of any variations therefrom.

The corporation laws of the United States do not, however, prescribe the method of dealing with these accounts, and the auditor will therefore use his judgment in regard to what he finds.

## (177) AUDITOR.

An auditor may be described as a person whose duty it is to examine the accounts of a company, firm or person, so as to ascertain the exact state of affairs financially at a given moment. This involves not only a scrutiny of the figures, but also an examination of the form and substance of the accounts, in order to see that they truly represent the state of affairs purporting to be represented by them. The position of an auditor, his rights, and liabilities, depend very much upon the circumstances under which, and for the purpose of which, he is appointed.

Qualifications.—Dicksee says: "First, it is very generally conceded that an exhaustive knowledge of every department of book-keeping is the very 'A B C' of the auditor's art.

"Second in importance, probably, is a thorough acquaintance with various statutes regulating the different undertakings in which the auditor may be concerned.

"Thirdly, although this point has been bitterly contested by some, a sufficient knowledge, not only of business generally, but of the especial way in which various particular businesses are conducted. In his presidential address at the first provincial meeting of the Institute of Chartered Accountants, Mr. Frederick Whinney, F. C. A., clearly advocated the doctrine when he said: 'No accountant can successfully carry on his practice in all the above mentioned branches unless he is a person of cosiderable knowledge, skill, and experience, for he must be not only acquainted with book-keeping, which is to him as the alphabet only; but, to put it briefly, he must have some general knowledge of various trades and their customs.'

"Lastly, but not least, may be placed those desirable qualifications of the auditor which are not acquired by careful study, but, rather, by living. Tact, caution, firmness, fairness, good temper, courage, integrity, discretion, industry, judgment, patience, clear-headedness, and reliability. In short all those qualities that go to make a good business man contribute to the making of a good accountant; while that judicious and liberal education which is involved in the single word 'culture' is most essential for all who would excel. Accountancy is a profession calling for a width and variety of knowledge to which no man has yet set the limit; the foremost accountants are not ashamed to say that, like Epaminondas, they 'learn something in addition every day'; let us, therefore, see no shame in following their example."

Duties.—1. To detect error, mismanagement and fraud.

2. To verify the accuracy of books of account examined and to certify the correctness of the balance sheet submitted.

3. To determine the intent and insure a proper compliance with the terms of partnership agreements, etc.

4. To prevent illegal declarations of dividends, inflation of assets or overissue of capital stock, etc.

5. To satisfy himself as to the existence of securities included in the assets scheduled in the balance sheet.

6. To obtain and inspect vouchers for all payments made.

7. To call attention to all loose, irregular and incompetent methods employed, and to devise forms and methods which will prevent or hinder inaccuracies and facilitate the prompt detection of all errors which may nevertheless occur.

8. To provide the proprietors of a business, as far as possible, with a PERSONAL CHECK upon the accuracy and honesty of their employes.

9. To simplify everything that is complicated and difficult; to keep in order and to straighten out everything that has become confused and tangled.

10. To serve always the interests of his client (and thereby his own) to the best of his ability.

The relation of an auditor to those who employ him is invariably a confidential one. Just as the physican is admitted to the home, and shown the physical weaknesses which are concealed from other eyes, so is the auditor admitted to the inner sanctum of the business, where concealment of its weaknesses is impossible. The physician by a breach of the trust reposed in him could bring untold distress upon the family, and so might the auditor by a similar violation of confidence bring ruin and disaster to his clients. There are in the profession a number of men of strong abilities and splendid knowledge of the technical work of auditing, who are denied success, however, by the fact that they have at some time in their careers been disloyal to the interests of those who employed them. A case has never fallen within the observation of the writer, where an auditor has become recreant to the trust reposed in him, without bringing upon himself professional ruin. It is, therefore, best that the auditor at the beginning of his career should recognize the fact that nothing but the most uncompromising honesty should distinguish his conduct as an auditor. It is a common impression that the auditor is a developed book-keeper and that an apprenticeship at the book-keeper's desk is a necessary preparation for an auditor's work. It is hardly possible to agree with those who share this opinion. It is true, the auditor must have a thorough knowledge of accounts, and be so familiar with the art of book-keeping as to be able to understand and criticise any books which may be presented for inspection, but the duties of the two positions are very dissimilar and it is quite possible that a man may be a good book-keeper who would not succeed as an auditor, while on the contrary a successful auditor might make a very poor





book-keeper. The book-keeper should be a methodical man, whose every effort should be put forth to systematize his work and confine it within certain well-defined lines. The auditor, on the other hand, must guard himself against becoming too methodical or he will find himself trying to perform all his work in the same way, which will certainly defeat his success. As stated in the beginning, each piece of work undertaken is surrounded by its own peculiar circumstances, and this fact makes it impossible to prescribe set rules, to be followed in each and every piece of work. The object or purpose for which the audit is undertaken wields a directing influence in determining the manner in which the work shall be done. If the object of the audit be to ascertain the accuracy with which a book-keeper is discharging his duties, a very different procedure will be necessary from that to be taken in the case of a confirmation of a statement of resources and liabilities, where the honesty of the book-keeper is not in question. So also would a different course of procedure be necessary in legal investigations, where but one feature of the business may be of importance. It is the duty of the auditor, where employed to audit the accounts of a going concern, to report to those who employ him every material fact in connection with their business which he has reason to believe that they do not already know. It is his further duty to suggest improvements in the forms or systems of books in use, when he can advance a good reason for the adoption of such suggestions. The auditor should never be afraid of giving more than he is paid for. He will find that those who employ him believe that they are paying for all his talents, and that they have a right to all of the knowledge of their affairs which becomes apparent to him from his investigation. The auditor will find it profitable to have his clients feel that they have received a little more than they expected from his employment, and as a general policy in every line of business it is best to give full measure. The auditor who shall fail to do this may be compared to a physician who is called to lance a boil and does so without mentioning the presence of an incipient cancer which is apparent to his professional eye. It is difficult to attempt to set forth his duties in the actual work, for the reason that each auditor determines this for himself, and may in perfect good faith entirely disagree with the policy that might be mapped out by another auditor. As before stated, the circumstances of each case will determine the auditor's duty in relation thereto, so that no set rules can be prescribed.

ATTITUDE OF THE AUDITOR.—The auditor to a firm is usually appointed by the mutual agreement of the partners, but, occasionally, by the articles of partnership themselves, or by one particular partner. If appointed auditor to the firm, he must, however, in either case, consider each partner as his client, and protect the interests of each accordingly. The same conditions as to terms of agreement, responsibility, fees, and resignation, obtain as to the auditorship of firms as mentioned in the previous paragraph; but it would seem that any one partner would have power to bind

the firm as to the amount of the fees—except, perhaps, where the appointment lay in the hands of one partner, when the consent of such partner would probably be required. Probably no one partner could discharge an auditor without the consent of all his co-partners.

To a great extent it rests with the directors to decide how much information shall be supplied in the published accounts; but the auditor must not lose sight of his individual responsibility, and he should never certify a balance sheet to be "full" merely because he considers it to be as "full" as he may think it expedient for it to be. Rather let him, in such a case, certify the balance sheet, "in his opinion to be a fair balance sheet, and to sufficiently disclose the financial position of the company." On the other hand, he should be particularly careful to guard against juggling with words, and so appearing to give a full certificate, when in reality he is "making himself safe," or "hedging" behind a certificate which, when carefully analyzed (and only then) is found to be most qualified. He must, in every case, be satisfied in his own mind that the accounts are correct, and fairly stated.

Attitude of Proprietors of Business.—An accountant says: "Companies' audits are curious things. Some secretaries and managers think the audit ought to be as they think fit—that is, they and not you should say what ought to be gone through. In this case I strongly recommend the auditor to go through first what is offered, and afterwards to whatever he wants. Never be put off by anything material. If seriously blocked at any stage or thwarted in any way, look out and pay more particular attention to this part of the audit than any other." The proprietors of a business where the books are being audited are, however, pleasant as a rule, especially if the work is being done "on contract"—that is, at a specified sum for the job. If, however, the work is being done at so much per diem, some proprietors have an unpleasant habit of sneaking around the auditor every ten minutes and surveying his work with manifest impatience and displeasure, after a while asking him how much longer he thinks the audit is going to take, and otherwise generally upsetting his equanimity.

Some proprietors are quick to take advantage of any hints thrown out by the accountant in regard to shorter and better methods which might be improved, and promptly give such suggestions a trial. Others, strange to say, resent these suggestions, although they actually pay the accountants to make them. Instances have been known when very trying abuses, which greatly hindered the accountant in his work, and thereby made the audit more expensive for the merchant, were left uninterfered with year after year, in spite of recommendations for their removal made in each semi-annual report.

Attitude of the Book-keeper.—In the performance of his duties the public accountant must of necessity come into contact with all kinds and varieties of persons, and it naturally follows that some of his experiences





are amusing, and some exasperating. The demeanor of the book-keeper to the public accountant is of itself an entertaining study. Some book-keepers maintain an impressive and haughty dignity with a view to impressing upon the accountant the fact that he, the book-keeper, considers himself not only as good as the accountant, but a great deal better, and that if he, the book-keeper, must suffer the outrage of the accountant's contiguity, he does it under protest. Some book-keepers, on the other hand, are extremely agreeable, and even endeavor to be as "chummy" as possible with the accountant, as by this method they expect to touch the soft spot which can always be found in the heart of a human being, and thus obtain a favorable report in regard to their abilities and the way in which the work has been performed.

Some book-keepers are morose, savage, and act as though the examination conducted by the accountant was an insufferable insult which could never be forgiven. The accountant generally manages in some way to help improve the prospects of such a book-keeper as a return for his amiability.

Auditors' Assistants.—Reliability is the first requisite in an auditor's assistant, and those who wish to do well in this profession must, above all things, obtain a reputation for being tenacious of the secrets of their business. The accountant's assistant should be careful not to accept the friendly advances of the employers' book-keeper or other clerks with whom he may have to do, as in case condemnatory reports have to be made, he may otherwise find himself in an uncomfortable position. Owing to the difficulty in obtaining experienced assistants in this country, the public accountant is frequently compelled to suffer many annoying experiences. One difficulty which appears to be almost omnipresent is getting the detail work of an audit done in such a neat and orderly manner that, should the assistant die in the midst of an audit, or suffer any other calamity whereby he may be prevented from completing the work, someone else may take it up at the point of breakage and intelligently complete it, without having to do all the work over again. The average assistant, when he comes to any difficulty, will generally make a note on some small slip of paper, with an intention of referring to it at some time hereafter. He also generally carries these small slips around with him in his pockets. When he quits the work it never occurs to him that the contents of these slips will be unknown to his successor, and if that successor takes up the work where "number one" left off, and carries it out until its completion, he will consequently find himself involved in an almost inextricable tangle, the straightening out of which will be extremely annoying and expensive.

Another curious trait of accountants' assistants is that a great many of them cannot on any account be persuaded, induced or cajoled into obeying instructions, and this is frequently true of really good men. You may order them to follow certain lines in their work and to adopt certain methods, but in the end it is usually found that they have done the work

in some other way (their own way), which they describe to you as having been found by them to be much simpler and speedier in this particular case.

## (178) AUDITORS' CERTIFICATES.

Many forms of certificates have been used by auditors, and we attach some of the best known. It should be borne in mind that the auditor is not required to make himself responsible for errors or defalcations which have escaped his notice after a faithful and conscientious examination.

Forms and Certificates.—"I hereby certify that I have carefully examined the books of account of James Reid & Co. with the vouchers produced, and that the above balance sheet (or statement of assets and liabilities) is a true and correct statement of the present condition of the business as on the 31st day of December, 1899, as disclosed by said books of account.

Dated this 8th day of January, 1901.

(Signature.)

.....

Certified Public Accountant."

"I have audited the above balance sheet (or the company's balance sheet, dated the ..... day of .....), and in my opinion such balance sheet is properly drawn up, so as to exhibit a true and correct view of the state of the company's affairs as shown by the books of the company."

"We hereby certify that we have thoroughly audited these accounts for the (year) ended (25th March) last, and that the same appear to be correct. We further certify that the above balance sheet is in accordance with the books, and appears to us to be a correct statement of the financial position of the firm, as it appeared on the above date."

Auditor (Permanent, of Corporations).—The chief accountant, whose duty consists in verifying all the accounting work of a corporation, and preparing the necessary verified statistical statements of the condition of the business. These officers proceed from one branch to another checking the work in detail. They are also responsible for the suitability of the various forms used.

The duties of the permanently employed auditor of a corporation necessarily differ from those of an auditor employed from the ranks of public accountants. The former is the company's paid servant, and has not the independence or opportunity to use his best judgment that the public accountant claims as his greatest privilege and right. The paid permanent auditor of a corporation always has to consider whether his recommendations will give offense or not, as, if they are objectionable to the high officers of the corporation, he may lose his employment as a consequence. This consideration must at all times relegate the permanent auditor to a secondary place in accounting, ranking him barely above the level of the ordinary book-keeper, and a description of the methods he may





use in his work in devising systems and checking the accounts of work of his office and that of the various branches connected therewith, does not possess any greater value than the description of the accounting methods of a business where no permanent auditor is employed. However, for the purpose of including everything of interest, we quote the following description of the duties of a permanent auditor as compiled by one in the profession:

To open a set of books for a business corporation of today as compared with the method that would have been employed some twenty-five years ago, the auditor of a corporation finds himself confronted with many difficulties, occasioned by the legislatures of the different states enacting laws permitting the organization of corporations with certain limited liability conditions. As a result of these varying conditions we find that stock companies do not all open their books alike but conform entirely to their charter, which contains the fundamental agreement with the incorporators themselves, terms of agreement of association with the shareholders indicating the character and extent of business in which the company shall engage, taken in connection with the laws of the state under which the incorporation takes place. Consequently, the auditor finds the situation of some of the larger corporations of today something like this:

To engage in new enterprise with capital stock paid in full; or part of the subscription paid in cash and balance in instalments under various conditions; or patentee may take stock for patent, balance of stockholders pay in cash, etc., or consolidation of many companies into individual corporations.

The new company purchases all of the real estate, plants and inventory of materials at an appraised value, paying cash to the sellers, or instead of paying cash issue paid up stock. This necessitates the old companies collecting their accounts and paying off their obligations, they settling with their stockholders direct, or the new company may purchase the outstanding stock of the old companies, in which case the old companies turn over their entire property, including book accounts, real estate, plants and materials; or the stock of the old companies may be purchased at a price based upon their trial balance at a certain losing period, receiving a guarantee from the old companies that at the expiration of a certain period they will make good all unsettled balances; or to purchase part of the entire capital stock of other concerns, the latter to retain their corporate existence, in which case the new company would control the officers and business affairs of the old companies, taking their profits after regular dividends have been declared, which profits or dividends from subsidiary companies would constitute the principal earning power of the new company.

The method of keeping the accounts of a corporation ten years ago was simple compared with modern practice, for the reason that certain legal aspects were not considered at that time while now a majority of the

states have enacted laws limiting the powers of both local and foreign corporations.

The books of an individual corporation of today are opened up under legal counsel so as not to conflict with the various state laws, and which legal advice governs the auditor in outlining his system of accounting. This arises from the fact that most of the large corporations of today have plants located in various states, are transacting business in every state in the union and with foreign countries. These facts decide whether the minor companies transact business as individual corporations or whether their accounts shall be a part of a central system.

The auditor should determine what results it will be necessary for him to obtain; whether the officials desire a monthly estimate of profits and losses, being satisfied to wait for actual inventories upon which correct showing can be ascertained, which may be either semi-annually or annually, or to make a monthly closing for ascertaining profit and loss, taking book values for inventories, which inventories can be adjusted from time to time as fast as actual count can be had. If the auditor inaugurates the monthly closing system, the officials will never permit him to change; but once started on a semi-annual or annual closing with estimate of monthly profits, he will find it hard to convince the officials of the benefits of more frequent showings if he desires to change.

Assuming that the method of arriving at monthly profits by an actual closing of the books is preferable, a system which will obtain these results should be arranged upon a plan likened unto a wheel—the hub being the central office, the spokes the departments or district offices, and the rim the organization. The first thing necessary will be so to arrange the general ledger in the central office as to receive only the results of the various departments or district offices, but so mapped out that these results will arrive as early after the first of each month as is possible, and that all reports giving these results be so classified that every detail necessary for sake of comparison be given. The general ledger should only contain the representative accounts of the company, in addition to which may be carried individual accounts of such nature as will not permit of their being carried in the sales ledgers; also an account with each accounts receivable or sales ledger as is used in the accounts receivable department. It should be arranged that all reports showing results be so complete that after they have been entered on the general ledger at the end of the month, the trial balance of the ledger will show the true condition of the company's affairs.

In large corporations having many factories or branch offices, and especially where these are widely separated from the central office, it is very difficult to get all closing entries in at a very early date after the first of the month, and as it is usually the fifteenth of the succeeding month, the general books must remain open longer than the records in the other departments; therefore, it is very essential that some method be employed in the construction of the general books that will admit, in order to gain time,





of the posting of the current business without interfering with the work of the preceding month. After the general books have been carefully classified and laid out to receive the various reports from the departments and district offices, special attention should be given to the method and manner of making up the forms of reports from the departments or district offices to dovetail with the classification of the general books.

Departments can be divided into the following general classifications, and subdivided into as many departments of each as the nature of the business of the corporation demands, having a subdivision of each maintained in the district offices, if desirable, in which event they should be so arranged that their reports will be combined in the original department, which should be maintained in the central office, consequently reference to such departments at the central office will give all of the information of the company desired:

General Ledger Division.
Sales Ledger Division.
Journal Division.
Invoice Division.
Claim Division.
Vouchers Division.
Cost Division.
Statistical Division.

The accounts receivable or sales ledgers should contain only those accounts which represent charges covering the sales of the company's products. As the book-keepers on these ledgers should do nothing but post the entries to these accounts, the auditor will find it to his advantage to so arrange the division that each book-keeper may receive his work entirely independent of the others, so that he will not be compelled to post from a record that is passed along from one book-keeper to another, causing an industrious book-keeper to wait on his neighbor who is behind in his work. In planning this division it will be found that bound forms cannot be as successfully used as loose ones. After the book-keepers have posted the entries from these reports, such reports should be turned over to the division keeping bound records of the results to be summarized. In fact, the adoption of such a system will result in the reduction of labor to a great extent over the methods generally employed at the present day. It is greatly to be desired that a trial balance of the accounts receivable or sales ledgers show as nearly as possible the true condition of the accounts receivable at all times, and this can be had by the inauguration of a claim division, which will receive all of the unadjusted balances in the customers' accounts, thereby leaving the sales ledger accounts in a clean condition.

The journal division can contain all of the journal work of various natures that is essential to the business, including sales records of all kinds,

debit and credit memoranda, and such other entries as affect the sales ledgers.

The invoice division should issue all invoices of the company. This division should be so planned that quick reference can be had to all of its records.

In large corporations the settlements of accounts receivable carry with them a great many deductions of various natures, and in addition to these deductions claims are made in advance of the remittances. In order to facilitate the handling of all such deductions it is necessary to establish a claim division, which will handle everything of a claim nature. As this division is a part of the accounting department they will keep certain records that will contain all the business that is left in their hands for adjustment and which must balance each month in order to ascertain that all claims are accounted for. If this department is properly equipped, claims should be adjusted promptly, thereby keeping the customers' accounts in a healthy condition at all times.

Accounts payable of every nature should be handled by the voucher system, which obviates the necessity of carrying a purchase ledger in which are kept the accounts of those from whom purchases are made. The distribution of vouchers audited account at the end of the month should be made direct to the different factories getting the materials and re-distributed to the various commodity accounts. There is one important account which is carried in the vouchers record which the auditor is compelled to scrutinize very closely, and that is General Expense. In order to conveniently examine it and at the same time keep the classification of the accounts from the others, it is suggested that the general expense of the company be charged to this one account and classified according to the various classes of expense by prefixing a number to the account, and in case a subdivision of the account is required, it can carry a number and a letter.

As the object of a cost department is to obtain accurate costs of every article manufactured, a correct distribution of the various items in connection therewith is essential. It becomes, therefore, necessary to provide a system that will account for every item of expenditure, such as materials, pay rolls, supplies, etc., which cannot be successfully accomplished unless it is a part of the general accounting system, having all accounts pertaining thereto closed monthly into the general books. The inauguration of such a system commends itself over one where all charges entering into the cost of production are charged into one general account, generally termed "manufacturing account," with an "estimated" system used for getting at costs unattached to the books; the latter costs never balance with the "manufacturing account" at any period, while the former actually accounts for every cent of receipts and expenditures, proven by the books being in balance each month with all factories and branches. The correct distribution of same over the various cost accounts at the different factories and warehouses depends largely upon the efficiency of the help and





their correct interpretation of the instructions. The general ledger at the central office will contain an account with each factory or warehouse, the same as with any customer to whom goods are sold, being charged with all materials on hand, purchases, pay rolls, etc., and credited with sales, transfers of materials to other works, etc., corresponding entries being made on the ledgers at the factory with the general office account. Distributions of the various items passing through the central office account are made to the numerous cost and inventory accounts. Having an inventory account with each class of goods produced enables a company to keep an accurate book account of its stock by charging same with production and returned goods, and crediting same with sales and transfers to other departments to be used in producing other commodities. Having a cost account containing every item of expense pertaining thereto enables it to furnish a cost of production for use in charging materials produced to the inventory account. With the adjustment of the sales accounts, profit and loss account is opened, receiving the difference, in addition to which there will be such other accounts of a profit and loss nature as appear on the books. This will give the profit and loss for the factory, the inventory of materials on hand, accounts receivable and accounts payable, all of which must be ascertained and closed into the central office account before the general books can close. Cost sheets showing every item entering into the cost of production can be made up from the ledger account. The closing of all these factory accounts into the general books makes it possible to show the profits and losses for every plant as well as the profits and losses on each article sold; in fact, there is not much that would be asked for that could not be given promptly. Not all of the expense that accrues at any particular factory and territory adjacent thereto enters into the cost of production, but on the other hand only expenditures that directly enter into the cost of producing any particular commodity. On account of the various processes that goods sometimes go through, certain items of expense cannot be applied directly against any one article manufactured in a certain department, and in such cases certain distribution of such expense will be made over the various articles that it affects on the basis of percentage generally according to production. Outside of this comes the local office expenses, insurance, taxes, etc.; also expenditures for improvements, maintenance, etc.; such expenditures, although pertaining to any particular factory, do not enter into the direct or first cost of goods, but as in any well organized institution will be closed into profit and loss against the earnings of the commodities sold from that particular factory. For the guidance of the salesmen, it is essential that these expenditures be distributed on some particular basis over the various articles manufactured, and treated as an additional cost to be taken care of in formulating the selling price of goods. In addition to the local expense the general expense of the company should not be lost sight of, but treated in like manner, so that if the salesman finds he

can get the additional price to cover the expenses of the company, both local and general, he can do so, and if it becomes necessary to meet competition he can distinguish between the first cost and the total, including selling expense of the company. While in many instances the application of this system to obtain accurate costs may result in the appearance of high costs for some particular article, those not informed would immediately condemn the system as inaccurate and unreliable, but the real facts are the system is correct if the books are in balance and, furthermore, an explanation of each item can be readily given. As this division is one of the most important in the company which is under the auditor, too much attention cannot be given to it.

When arranging the accounting system one should have in mind the numerous statistics which the management will call for at any time, and endeavor, therefore, to have every form of report emanating from the several departments as complete in detail as possible, so that information of whatever nature desired can be quickly produced by the statistical division.

After all reports are in, the statistical division enters upon its work of recapitulating and verifying them. The auditing done in this division should be correct in every detail, as all statements pass direct to the executive officers, necessitating that the work should be done so thorough that criticism be unnecessary. To accomplish this it requires that the division be lined up so completely that all manner of checks be had on the various reports to prove their correctness without reference to the auxiliary books. This means a great deal of study at the time the general forms are drafted for the accounting system, as the omission of a certain form or the wrong drafting of another may prove expensive to rectify. The statistical division is in a sense a thermometer, indicating the rise and fall of business temperature or pulse, showing the condition normal, active or unhealthy. As the management does not request any particular statements for its guidance, it is left with the auditor to provide in such forms as will determine the condition of the company. The following are a few of the most essential reports:

Financial Statement,
Profit and Loss,
Inventory,
Sales,
General Expense,
Number of Employes and Pay Rolls,
Additions to Plant,
Improvements,
Maintenance,
Production,

and other important items according to the nature of the business. These reports should be comparative and classified according to the commodities, showing quantity, average price, percentage, profit and loss, by territorial





division. General expenses should be classified according to the various kinds of expense as well as by territorial division. Not only does the statistical division pay particular attention to the reports concerning the business done by the company, but has other work, such as ascertaining the expense incurred by each department of the company, and seeing that the proper distribution of every item of expense in the shape of pay rolls, stationery, etc., is made. The keeping of expense statistics by departments permits the management to force measures of economy unknown to heads of departments. As all large companies have investments in other concerns of which they own all or a controlling interest, the statistics of these companies are as carefully looked after as those of the controlling company, for the reason that in some cases it becomes necessary to combine results of subsidiary companies with those of the controlling company to arrive at certain issues. It is, therefore, necessary that the reports of the subsidiary companies reach the central office as early as the reports from the factories. This plan, therefore, becomes self-proving and self-balancing, resulting in economy of labor and promptness in arriving at details.

One of the most important features in the successful operation of an accounting system is the arrangement of forms, records and ledgers. It is necessary that the auditor be "up to date" in the very latest methods and short cuts used in the construction of records, as the adoption of some forms and records which may appear necessary, will result in being cumbersome and jeopardize the whole system. One should always have before him the motto, "No Red Tape, No Duplication," and strive in every way possible not to deviate from it. Posting should be done as far as possible from original entries, refraining from transferring these entries in any manner; for instance, the book-keeper, in order to expedite the work given him, should receive his cash entries on sheets from the treasury department at a certain time, and should not be compelled to wait until his neighbor has attended to such items as belong to him, and the same rule should apply as regards the invoice, journal and other divisions. Experience has taught that this can only be successfully accomplished by the use of loose forms emanating from the different departments as original entries.

A great saving of time can be had in the book-keeping division if the proper ledger is installed. Some companies have demonstrated that the loose leaf ledger meets all requirements. This is undoubtedly a fact in small concerns. They are also valuable for large companies starting an accounting system where no definite plan has been determined, but after a plan has been agreed upon, the loose leaf system will prove expensive, both as regards the number of books used and the labor necessary.

Ledgers should be so constructed that the book-keepers will not be compelled to stop their current work at the first of the month, and this can be done by the construction of a book containing two columns each, debit

and credit, respectively, having each month's entries alternate. With such a book, the book-keeper should always be up with his work. The ledgers should also be arranged with proper division of accounts to permit of a large number being kept within a small number of pages; this will result in economy. As every business is peculiar to itself, the application of one good ledger may fail while another with less of a reputation would meet the conditions, consequently suggestions only can be given. This is also true of other forms of reports.

It is often the case that the office boy, who receives a very small compensation, has his worth appraised according to his salary in his capacity of "director" of envelopes and general utility boy. A large company cannot afford to look lightly upon the qualifications of a boy for such work. He handles all of the important letters, invoices, memoranda, etc., and should he misdirect an invoice, for instance, of one large customer and another equally large, and it should happen that they were competitors in the same line of business, and upon receipt by one of the wrong invoice should discover the company giving his competitor any advantage, the result of such an error would cost the company making the mistake considerable money; yet this happens frequently, not only with invoices, but with important letters. It is, therefore, economy to put good help in such positions.

One of the greatest problems for a large corporation to solve is the filing of old records as well as of current records; the very best place to file them where they are easy of access, the method of filing or storing them for convenience of ready reference, the length of time certain records should remain in the office before being permanently filed, and last of all, how long records should be kept before being destroyed. There are so many conditions to consider, depending largely upon the nature of the business the company is engaged in, the system of conducting the business, whether through a central office or independent branches, that no particular plan can be suggested; however, as these records (most of them being from the accounting department) are frequently consulted, and there being many branches, a central storage should be built of fire-proof material, properly located so that it can be reached promptly from any office of the company and so constructed that it shall be partitioned to contain each class of records, separated according to offices and departments, boxes unpacked and contents carefully filed in accordance therewith. A good man should be in charge, with a record of everything that goes in and out. Records filed in different places devoid of system is entirely unsatisfactory, causing annoyance and delay in getting desired information and probably loss of money in failure to produce certain documents, which have been lost.

Prominent amongst the characteristics of persons in authority should be a reputation for strict integrity and truthfulness, as the exercise of these virtues has a powerful influence over employes. When deciding





questions in dispute, which is frequently necessary, strict impartiality and firmness are absolutely essential, so that the natural confidence existing between employer and employe be not disturbed. Fair play is the essence of discipline, and the latter, coupled with common sense, is the basis of business of whatever nature.

Persons selected for various important positions should be individually adapted for the duties required of them. Unless skill be exercised in the allotment of work to those who must perform it, it often happens, unfortunately, that men who are capable and willing in many directions are placed in positions where their energies are thrown away, so that in appearance, though not in reality, they work unwillingly and incapably. Unfortunately, many heads have had little or no experience in clerical work or the duties devolving upon the various clerks in their departments, are unable to correctly discriminate, and their inexperience is frequently the cause of misunderstanding, because they do not know the exact time it will take to perform any particular work, or how it should be done. Such conditions simply irritate and annoy the employe and unfit him in the performance of his duties. The head of a department should show uniform coolness and self-possession, otherwise the employes will become nervous and confusion will likely end all the good that might be derived from close supervision.

The question of priority is one that deserves more attention than it usually receives. Under no circumstances should one employe be given a position interfering with another, so that the duties of one will in no way overlap the other. This means that it becomes essential to distinctly outline every position and specify to whom reports should be made. Those in charge of departments should be given full swing to exercise the duties imposed upon them, with the knowledge that their superior has full confidence in their ability to satisfactorily run the department and that results are wanted. A chief cannot perform his work when continually hampered by the thought that every moment he is being watched by his superior. He thus quickly recognizes the responsibility upon him and that criticism will result detrimentally.

The recommendation of a central system of accounting with secret methods of checking and verifying reports in the absence of auxiliary books, where there are many branches, is good in so far as its moral effect is concerned. Every man knows that his work must be gotten out correctly and promptly, or he will be notified from headquarters that it is not satisfactory; it is unnecessary to say that he will not court many such notifications. It seems to be human nature to work better when one knows he is being held for results.

As accounting is simply common sense with the application of a few well-settled principles and mathemetical formulae, the auditor of any corporation must be able to meet and overcome unforseen difficulties at times, besides putting into succesful operation a system applicable to a certain

business. His ability, therefore, cannot always be strengthened by experience in any particular line of business. On the contrary, he must keep up-to-date by reading technical literature on the subject of "accounting" and seeking association with accountants of all classes.

The professional accountant is brought into contact with various kinds of trade, permitting him to get actual experience while the less fortunate must employ other means, such as accountants' organizations. Considering, therefore, there is no authority on these matters, it remains for the progressive man to carve out his own success at the head of a large corporation by the application of his past experience and his ability and nerve to introduce methods to meet the requirements.

Up-to-date American authority on the subject of the duties of the auditor, is furnished by R. H. Montgomery, C. P. A., in an address delivered before the Evening School of Accounts and Finance, University of Pennsylvania.

Only three kinds of audits, in a narrow sense prevail, viz.:

1. The examination which involves a mechanical checking of the books and records, the placing of red ink check-marks opposite certain figures in certain books, and the making of like check-marks opposite supposedly like figures in other books; and the verification of a mass of footings, vouchers, etc., which enables the auditor to say that the arithmetical work is perfect.

2. The examination which consists of a mere inspection of results, involving, as it may be, the analysis of certain accounts, but on unscientific lines.

3. An examination which combines three methods: First, the verification and testing of enough clerical work to insure its accuracy, having always in mind the co-ordination of the accounts, the actual rather than the physical relation of one book to the other; second, a careful analysis of the accounts, a searching inquiry into the entire organization under investigation by a careful search for errors of principle as well as technical errors and evidences af fraud; and, third, an intelligent study of the balance sheet.

Much harm has been done through the practice of making audits of the class first mentioned. A good business man with no knowledge of book-keeping can make a better audit than a so-called auditor who does not understand how to make an audit. A business man can tell very soon whether an audit is worth while, and if it is not conducted intelligently he does not want a second one. The third form of audit is the only one which will commend the accountant to an intelligent client.

The underlying principles of auditing are theoretical, and are not subject to change to fit particular businesses or special systems of account.

These underlying principles are few in number and can be applied indefinitely. Let us examine them:





1. The auditor must ascertain that all of the assets shown by the books to be on hand at a certain date are or were actually on hand.

2. He must ascertain whether any other assets not on the books should be or have been on hand.

3. He must ascertain that the liabilities shown by the books to be owing at a certain date are or were actual liabilities.

4. He must ascertain whether or not all liabilities are in fact shown by the books.

5. He must ascertain whether or not liabilities so shown have been properly incurred.

6. He must ascertain whether the earnings shown by the books are properly accounted for, and whether any of the earnings are omitted therefrom.

7. He must ascertain whether or not the expenses and losses have been properly stated and supported.

Are these principles sufficient in given cases?

Single-Entry Books.—No modification of the above rules is necessary. If the assets and liabilities are not properly set up, the auditor can build up his own balance sheet and proceed as if the items were on the books.

The application of all of the above rules will, I believe, result in a proper audit of any undertaking. In commencing an audit secure a balance sheet, if one has been drawn up, together with a trial balance, before closing. A careful survey of all the accounts shown thereon will suggest the proper procedure. After a little experience the auditor will be able to recognize every caption on the trial balance, except that sometimes a "yellow dog" account is called "Hanover Bank," or some other misleading title. A glance at some of the entries is usually enough, however, to set one straight.

Verification of Assets. An untrained auditor should inspect physically all assets, otherwise he may be deceived; but an auditor with the requisite training and experience will find that many assets are susceptible of actual verification without the physical scrutiny otherwise required. Bank balances, for instance, may be proved without visiting the bank, and requiring them to show your client's money, even if banks earmarked all funds in their possession. A bank pass book indicating a balance in excess of that called for in the cash book is, however, by no means conclusive. Bank pass books are easily duplicated and forged. Outstanding checks may more than exhaust the nominal balance shown by the bank—more than wiping out the balance claimed. The procedure in these two instances is plain: The auditor should himself secure the pass book from the bank or ask for direct information, even if it were balanced the day before the audit, and as audits are usually made at a later date than that of the balance sheet, an inspection of the checks received subsequently will probbly disclose any discrepancy in the list of outstandings at the time of the balance sheet. It is hardly necessary to state that the only currency

which should appear in the cash drawer is that issued by the United States government. Sundry notes of hand issued by the cashier himself, or other employes, are no longer regarded as quite so good as gold coin of the present weight and fineness.

Bills Receivable, Stocks, Bonds, Etc.—After the verification of the cash, which is the most "liquid" asset, and is, therefore, more liable to change and requires immediate attention, will come the examination of promissory notes, stocks, bonds, etc. Without going into details it is sufficient to say that no one should attempt to pass on the adequacy of securities, unless thoroughly acquainted with the general laws and customs regarding them. This equipment includes a knowledge of commercial paper; familiarity with corporate stocks and bonds of various kinds; enough knowledge of law to distinguish between a third mortgage and a ground rent; and, above all, enough common sense and everyday knowledge of the market to be able to detect false values placed upon beautifully printed certificates and bonds. It is quite true that the securities of many sound enterprises are not quoted daily, but as a rule they speak for themselves, and securities concerning which a trained auditor finds himself unable to secure any independent valuation should not be left to the handling of an officer who is anxious to show a profit. If the cost of this entire class of assets is not shown clearly by the books, the auditor should be careful in accepting the estimates of officers as to their value.

In this connection it should be noted that all overdue or protested notes should be transferred immediately to the personal account of the debtor. The bills receivable account in the ledger is for live notes not due, and its use as a morgue must be condemned by every auditor. Accounts receivable can, as a rule, be valued without difficulty. If the business has been long established, past results can be profitably used, and from these results an allowance for bad and doubtful debts can be ascertained. The accountant should be as generous as possible in this reserve. Of course, all recent accounts are good. But were not all bad debts at one time "recent"?

Stocks on Hand.—As an auditor acting in his professional capacity is not an appraiser, he is not held responsible for the value nor quantity of the stock of merchandise, materials or product which is shown by the balance sheet, unless, of course, he chooses to accept responsibility.

In practically every audit of a commercial undertaking the audit is commenced after the date of the balance sheet. If the auditor ascertains that the stock has been taken by competent persons; certified to by responsible officials; the extensions and footings verfied by himself or his assistants; numerous items critically examined to see that the stock is priced at cost or the market, whichever is the lower; that a careful analysis of the profit and loss account does not reveal any marked discrepancy between the inventory in question and that of former years, unless readily





explained—he may feel reasonably safe in accepting it. In all cases, however, his certificate should set forth how far his certification has extended.

. The inventory should be examined first if there are collateral indications that the business has been profitable, even though the books show a loss. Inventories are frequently taken hurriedly, materials in transit are often omitted, or included when the bills therefor have not been entered. An inventory at the beginning of a period might be over-valued, and at the end under-valued, and numerous other causes of errors might be cited which, if not detected, would result in misleading statements of profit and loss. An auditor will find the inventories one of the most fruitful sources of error. Here also an auditor will have to use good judgment in passing values, for each increase or decrease in an inventory affects the profit and loss account to correspond. It is almost as harmful to pass under-values as over-values where the result of the audit may be improperly used. The flagrant cases, however, concern over-valuations, with which an auditor must deal without fear or favor.

Plant, Machinery, Real Estate, Etc.—If possible, ascertain the exact book costs of these assets, and apply proper rates of depreciation. This answer, though short, is sufficient. Its ramifications, however, cause the auditor more trouble than all the other asset and liability items on the balance sheet combined. An auditor whose work covers perhaps one year only must accept the responsibility of the whole previous history of the undertaking, so far as capital assets are concerned, unless he specifically disclaims it, and, even then, stockholders will probably hold him liable if mistakes are made. This brings up the question of the auditor's relation to the work of a predecessor. If the predecessor is a reliable accountant his balance sheet should, of course, be accepted, but this contingency does not often arise. Most reliable auditors retain their clients, so that the work of a preceding auditor will usually bear as careful scrutiny as that of the book-keeper.

If an appraisal indicates a greater valuation of capital assets than the books disclose, due perhaps to excessive depreciation charges, it may be good accounting to increase the book valuations and correspondingly increase the surplus. The surplus so raised, however, should not be used for dividend purposes, and in view of the fact that an appraisal may affect values at a time when materials of all description happen to be far above actual cost, it is rarely advisable to disturb the book valuations, unless to reduce them where found excessive. Even then, if at cost and properly depreciated, the present apparent value should not govern. Re-valuations are valuable to adjust insurance schedules, etc., but are not so scientific from an accounting standpoint as cost and depreciation. In rare cases, where accounts are kept too conservatively, items properly chargeable to plant have been charged to maintenance. An appraisal should not, however, be required to discover such a condition. A proper audit will be sufficient. It is frequently no easy matter to distinguish between additions to plants and renewals, but the auditor can usually rely on the state-

ment of an engineer or superintendent, unless, of course, there is ground for suspicion of fraud.

Renewals must not be classed with re-valuations, although they have some points in common. For instance, if an engine costing $15,000 has 50 per cent or more greater efficiency than a $10,000 machine which it replaces, there should be an increase in the machinery account of $5,000. If proper depreciation has been provided there would have been a sufficient sum set aside, plus scrap value, to contribute $10,000 of the $15,000 required. If, for instance, depreciation were only $3,000 and the old engine sold for $1,200 net, there would have to be an immediate charge against profit and loss of $5,800.

With respect to accrued interest, unexpired insurance, etc., a careful analysis of the nominal accounts will disclose all prepaid items, and a careful examination of the assets will show up accrued items. As these assets vary from year to year, it is never safe to overlook them, and they should be placed on every balance sheet.

Liabilities.—The audit of liabilities need not be discussed in detail. The principal point to be urged is that Rule 4 is the most difficult to cover of all those mentioned, and perhaps the most important. A reasonably careful audit of the facts and figures in the books will be sufficient to vouch the liabilities per the balance sheet, but it requires more than a careful audit to ascertain whether or not all liabilities are, as a matter of fact, in evidence. It requires intuition, almost, in certain cases to locate large bills payable or other debts, the existence of which has been hidden from the auditor. Sometimes these omissions are intentional and fraudulent, very often unintentional and due to carelessness, but in either case the auditor's duty is the same. His responsibility does not end with the books. He is not a machine to add up columns; he is supposed to have all the skill and experience which should always be expected of each member of a skillful profession. Therefore, if the "account payable" does not appear in the voucher record he must notice its absence. This caution also covers the auditing of items which do not usually appear until the closing of the books, such as accrued interest payable, unpaid wages, or commissions to agents, etc.

Income and Expenses.—The audit of income and expenses can be treated of here only in the most general manner. As a rule, the audit of earnings is more important than the audit of cash payments. Not that the audit of payments is not important, but the auditor who discovers a leak in earnings, due either to faulty methods or to fraud, is rendering far more valuable service to his client than one who spends practically all of his time on vouchers, footings and postings, and whose entire report consists of twelve pages containing nothing else than a list of vouchers not submitted or not approved by three persons.

As a rule, a paid check, properly indorsed, is a very good voucher wherever the signing of checks means anything. True, it does not state





the purpose, but the competent auditor can usually read a purpose into a bank check. It may be supported by original invoices showing the successive records of receiving clerks, purchasing clerks, heads of departments, book-keepers, et al., but, if a test indicates that all of these precautions are taken, then, as a rule, the chance of fraud or error in this branch of the work is greatly diminished, and too much time should not be spent upon it.

The auditor should not be too technical. If the minute book of a corporation whose stock is all owned by four or five persons does not indicate a meeting for several years, although the stockholders' personal accounts indicate that profits have been credited thereto, the auditor should not assure them that they are in a bad way. If the profits have been equitably credited, if the concern has actually earned these profits, and is solvent, and if the state has not been defrauded out of taxes, the accountant should not concern himself if the stockholders wish to continue as of yore. Since no court would stop them, the auditor is not called upon to interfere.

Above all, the auditor's work should be of value to his client. The audit should be worth more than the amount of the auditor's fee. Take the case of the manufacturer who also owns horses, and where horse feed has been sold; not one such man in fifty cares whether or not his book-keeper credits a sale of oats to the stable account or to the general sales account, but fifty out of fifty men have a reasonable cause for complaint against an auditor who would fail to discover that oats were being sold, and that stable expenses were increasing beyond reason, the latter being readily discovered by analyzing the accounts and making up of a comparative statement; this discovery in turn uncovering the fraud.

In conclusion, the auditor should be practical. No accountant should attempt the work of a professional auditor unless he is able to take such a broad view of a balance sheet that he can see not only what it contains, but what it should contain.

### (180) AUTHORIZED CAPITAL.

Another term for "Nominal Capital." The amount of capital offered for subscriptions.

In some countries a certain proportion of the subscribed capital is left "uncalled," i. e.—it is payable by instalments as called for by the directors.

This uncalled capital is used as a form of collateral security in various ways, the stockholders being liable to the extent of the stock subscribed.

### (181) AUXILIARY BOOKS.

Auxiliary books of accounts may be defined as records other than those of original entry. Statistical records of all kinds, manufacturing expense and cost distribution books would be classified under this heading.

In businesses affected day by day by market variations, these auxiliary

records are of the utmost importance and are constantly consulted. As examples of such books may be mentioned records of options bought and sold by brokers on the board of trade.

## (182) AVERAGE.

A varying quantity on which a fixed rate is to be charged. To find the amount of such charge, proceed as per the compound average rule given under the head of "Averaging Accounts." The date at which the bill is to be rendered is taken as the focal date from which the average storage of goods received and delivered is calculated. The following will illustrate the problem to which the above definition refers:

| RECEIPTS. | | DELIVERIES. | |
|---|---|---|---|
| May 19 | 1,000 cases | May 26 | 200 cases |
| May 30 | 2,000 cases | May 28 | 100 cases |
| June 10 | 2,000 cases | June 1 | 1,400 cases |
| June 15 | 500 cases | June 7 | 1,000 cases |
| | | June 20 | 300 cases |
| Total | 5,500 cases | | |
| On hand | 2,500 cases | Total | 3,000 cases |

Average of cases on which to charge storage.....1,579 cases

PROCESS OF OPERATION.

| | | |
|---|---|---|
| May 19 | 1000 x 33= | 33000 |
| May 30 | 2000 x 22= | 44000 |
| June 10 | 2000 x 11= | 22000 |
| June 15 | 500 x 6= | 3000 |
| | 5500 | 102000 |
| May 26 | 200 x 26= | 5200 |
| May 28 | 100 x 24= | 2400 |
| June 1 | 1400 x 20= | 28000 |
| June 7 | 1000 x 14= | 14000 |
| June 20 | 300 x 1= | 300 |
| | 3000 | 49900 |

102000—49990=52100÷33
=1579 cases on which to charge.

The above method assumes that each case was in storage from the date received until June 20th, and by this average process we find first, that the number of days' storage on one case was 102,000. On the deliveries we take the length of time that each delivery was made prior to June 20th, by which we obtain the total of 49,900 days' storage on one case as shown. Deduct deliveries from receipts and the difference, 52,100 cases divided by 33 is the number of cases on which to charge the storage at whatever rate is fixed.

## (183) AVERAGING ACCOUNTS.

There are many methods of "averaging accounts," which is one title of that arithmetical formula known as "equation of payments"—the deter-





mining or finding of the balance of interest due on an account, or finding the common time of maturity of bills due at different times.

The general principle involved is simple. Charge interest from due date on amount owing; credit interest on accounts received in payment, or part payment; the balance will be the interest due. On large accounts with numerous charges and credits it is a laborious task to obtain this balance, and hence, mathematicians have devised many methods which were more or less short-cuts. In fact, so many methods have been devised that it is quite confusing, and a thankless task, to study them all and follow up the different reasons for the different rules.

The rules appended for Single and Double Average are simple, good, and easily borne in mind, and will answer every purpose.

SINGLE AVERAGE.—Set down the items in their order of due date.

Calculate the number of days between the first and second items, and multiply the amount of the second item by the number of days. This is called the product of average. Proceed in like manner with each succeeding item.

Foot the items and products for average.

Divide the latter amount by the first. The result will give the number of days forward from the date of the first item, which added to that date will give the average due date of the account.

Calculate interest at the required rate on the sum of the account from the average due date to the date of rendering statement.

| | MATURED DATE | | AMOUNT OF BILL | DAYS FORW'D FROM DATE OF 1ST BILL | PRODUCT FOR AVERAGE | |
|---|---|---|---|---|---|---|
| | Feb. | 15 | 100 | | | Date of rendering Statement |
| | Mch. | 25 | 100 | 40 | 4000 | June 1st |
| | Apl. | 15 | 100 | 60 | 6000 | Basis - 360 days to year |
| | May | 15 | 100 | 90 | 9000 | Interest - 6% |
| | | | 400 | | 19000 | |

47½ days foward from Feb 15
Average due date Apl 2½
6% Interest on $400.00 from Apl 2½ to June 1st 30d

Proof:

| | |
|---|---|
| Interest on $100 at 6 per cent from Feb. 15 to June 1.... | $1.75 |
| Interest on $100 at 6 per cent from March 25 to June 1.. | 1.08 |
| Interest on $100 at 6 per cent from April 15 to June 1... | .75 |
| Interest on $100 at 6 per cent from May 15 to June 1.... | .25 |
| | $3.83 |

DOUBLE AVERAGE.—Assume as the basis for finding the average the 1st of the month in which the first charge is made. This is called the "Focal Date."

DEBITS.—Calculate the number of days from the focal date to the date of each charge, or to the due date if it is a time charge.

Multiply the amount of each charge by the number of days obtained. This gives the "product for averaging."

Add the debit items of the statement and the "product for averaging" column.

CREDITS.—Calculate the number of days from the focal date to the date of each credit.

Multiply the amount of each credit by the number of days obtained, which gives the "product for averaging."

Add the credit items of the statement and the "product for averaging" column.

Deduct the total of the credits from the total of the debits, and the total of the credit "products" from the total of the debit "products."

Divide the balance of the "product" columns by the balance of the "items" or "amount" columns. This will give the number of days forward from the focal date when the balance of the account was, or will be, due. This is the average due date of the account.

Calculate interest on the balance of the account for the period of time elapsed between the average due date and date of rendering statement.

DATE OF SETTLEMENT JULY 1ST — FOCAL DATE FEB 1ST

| DEBITS | | | | | CREDITS | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MATURED DATE | AMOUNT OF BILL | | DAYS FORWARD FROM FOCAL DATE | PRODUCT FOR AVERAGE | DATE | AMOUNT | | DAYS FORWARD FROM FOCAL DATE | PRODUCT FOR AVERAGES |
| Feb 15 | 100 | - | 15 | 1500 | Apr 10 | 100 | - | 70 | 7000 - |
| Mch 25 | 100 | - | 55 | 5500 | May 10 | 100 | - | 100 | 10000 - |
| Apr. 15 | 100 | - | 75 | 7500 | June 10 | 50 | - | 130 | 6500 - |
| May 15 | 100 | - | 105 | 10500 | | | | | |
| | 400 | | | 25000 | | 250 | | | 23500 |
| | 250 | | | 23500 | | | | | |
| | 150 | | | 1500 | = 10 days forward from Feb. 1st | | | | |

Average Due Date Feb 10th

6% Interest on $150 from Feb 10th to July 1st - $3.52

PROOF.—Total time—Feb. 1 (focal date) to July 1 (date of settlement)—5 months=150 days.





Divide total "product" of debts by amount of charges.

Deduct result from total days and calculate interest on total charges for balance of days obtained.

Divide total "product" of credits by amount of credits.

Deduct result from total days and calculate interest on total credits for balance of days obtained.

The difference between debit interest and credit interest will be the amount of interest due.

As a matter of fact the formula of the proof is as good, if not better, than the formula of the original, because it seems more complete. A further illustration is, therefore, given, showing the double average thus obtained.

FOCAL DATE JAN 1ST — DATE OF SETTLEMENT MAY 1ST

| DEBITS | | | | CREDITS | | | |
|---|---|---|---|---|---|---|---|
| MATURED DATE | AMOUNT OF BILL | DAYS FOWARD FROM FOCAL DATE | PRODUCT FOR AVERAGE | DATE | AMOUNT | DAYS FOWARD FROM FOCAL DATE | PRODUCT FOR AVERAGE |
| Jan 15 | 60 | 15 | 900 | Mch 10 | 50 | 70 | 3500 |
| Feb. 15 | 80 | 45 | 3600 | Apl 10 | 50 | 100 | 5000 |
| Mch 15 | 40 | 75 | 3000 | | | | |
| Apl. 15 | 50 | 105 | 5250 | | | | |
| | 230 | | 12750 | | 100 | | 8500 |
| | | | 1150 | | | | 85 |
| | | | 1250 | | | | (607) |
| | | | 1150 | | | | |
| | | | 100 | | | | |
| | | | 230 | | | | |

Total days from Jan. 1 (focal date) to May 1 (date of settlement) 120 days.

Debits—Total days 120—55½=64½. Interest at 6 per cent on $230 ..... $2.47

Credits—Total days 120—85=35. Interest at 6 per cent on $100..... .58

Interest due May 1..... $1.89

DATE OF SETTLEMENT MAY 1ST

| DEBITS | | | | | | CREDITS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DATE | AMOUNT | RATE | DAYS TO MAY 1ST | INTEREST | | DATE | AMOUNT | RATE | DAYS TO MAY 1ST | INTEREST | |
| Jan. 15 | 60 | 6% | 105 | 1 | 05 | Mch. 10 | 50 | 6% | 50 | | 42 |
| Feb. 15 | 80 | " | 75 | 1 | 00 | Apl. 10 | 50 | " | 20 | | 16 |
| Mch. 15 | 40 | " | 45 | | 30 | | | | | | |
| Apl. 15 | 50 | " | 15 | | 12 | | | | | | |
| | | | | 2 | 47 | | | | | | 58 |
| | | | Less Credits | | 58 | | | | | | |
| | | | Int due May 1st | | 89 | | | | | | |

What is called the "Interest Process of Averaging Accounts" is so generally used that an illustration is hereto appended in order to complete the subject. By this method the interest is separately extracted in each

calculation, the credits are subtracted from the debits, and the result is the same with a little more labor.

There are numerous other methods of obtaining average due dates, and amount of interest due at a given date, but the methods above described will answer every ordinary business requirement.

In cases of "freak" averages, where the average due date will be found prior to date of first charge, it will be well to bear in mind that where the preponderance of weight is all on one side no average can be struck.

The average due date of an account is the theoretical time the NET BALANCE must have run to produce at a given date the correct amount of interest on that balance.

ILLUSTRATION.

Date of settlement assumed as Focal Date.

*Nov. 1st date of settlement.*

| Dr. | | Cr. | |
|---|---|---|---|
| 1894. | | 1894. | |
| May 14, $500×166 | $ 83,000 | July 9, $400×111 | $44,400 |
| June 16, 800×134 | 107,200 | Sept. 11, 600× 49 | 29,400 |
| July 21, 300× 98 | 29,700 | Oct. 29, 200× 1 | 200 |
| $1,600 | $219,900 | $1,200 | $74,000 |
| 1,200 | 74,000 | | |
| $ 400 | $145,900 | 364 days back of Nov. 1st. | |
| | | Average date, Oct. 26, 1893. | |

ILLUSTRATION.

Credit amounts in excess of Debit amounts.

May 1st, Focal Date.

| Dr. | | Cr. | |
|---|---|---|---|
| 1894. | | 1894. | |
| May 14, $500×14 | $ 7,000 | June 9, $400× 69 | $27,600 |
| June 16, 800×46 | 36,800 | Sept. 11, 600×131 | 78,600 |
| July 21, 300×81 | 24,300 | Oct. 29, 200×179 | 35,800 |
| 1,600 | $68,100 | 1,200 | $142,000 |
| 1,200 | | | 68,100 |
| 400 | | 4/739/184 days back of May 1st | $73,900 |

Average date Oct. 26, 1893.

363 days' interest at 6% on $400.00 ..... $24.20

May 1st to Nov. 1st date of settlement—180 days.

1200/14200/118 days.

Proof.

1600/68100/43 days.

64000

4100

180— 43=137 days' interest on $1,600.00 at 6 per cent ..... $36.54

180—118= 62 days' interest on $1,200.00 at 6 per cent ..... 12.40

Interest due ..... $24.14





## ANOTHER METHOD OF AVERAGING ACCOUNTS AND COMPUTING INTEREST.

SIMPLE AVERAGE. Arrange the items in order of date. Use due date, if any.

Carry out balance of account on each date after items on that date have been entered. With every new entry there is, therefore, a new balance.

Multiply each balance by the time intervening between its date and the next succeeding entry.

Add amounts so obtained and divide by balance of account. The quotient will be the number of days to count backward from latest date, which will give average due date.

Compute one day's interest on total of "amounts" column (if time has been computed in days) which will be the balance of interest due at latest date.

ILLUSTRATION.

Int. rate 5%.

| 1905. | Dr. | Daily Balances. | Days. | Amounts. |
|---|---|---|---|---|
| Dec. 23 | $1,000 | $1,000 | 15 | $ 15,000 |
| 1896. (Dec. 23 to Jan. 7). | | | | |
| Jan. 7 | 500 | 1,500 | 20 | 30,000 |
| Jan. 27 | 2,000 | 3,500 | 14 | 49,000 |
| Feb. 10 | 200 | 3,700 | 15 | 55,500 |
| Feb. 25 | 300 | 4,000 | 10 | 40,000 |
| March 7 | 1,000 | 5,000 | .. | ..... |
| | $5,000 | | 74 | $189,500 |

$189,500 divided by 5000=37.9 days back from March 7=January 28 equated due date.

$189,500 @ 5 per cent for one day=$25.96, interest due, March 7. Total due March 7, $5,025.96.

COMPOUUND AVERAGE.—Proceed as before, but deducting credit "amounts" from debit "amounts" and dealing with the balance.

ILLUSTRATION.

Required amount due Feb. 19, '96. Int. rate 7%.

| 1895. | Dr. | Cr. | Dr. Bals. | Cr. Bals. | Days. | Dr. Am'ts. | Cr. Am'ts. |
|---|---|---|---|---|---|---|---|
| Dec. 1 | $1,000 | | $1,000 | | 7 | $ 7,000 | |
| Dec. 8 | | $800 | 200 | | 12 | 2,400 | |
| Dec. 20 | | 500 | | $300 | 20 | | $6,000 |
| 1896. | | | | | | | |
| Jan. 9 | 600 | | 300 | | 9 | 2,700 | |
| Jan. 18 | 700 | | 1,000 | | 32 | 32,000 | |
| Feb. 19 | | | | | | $44,100 | $6,000 |

44,100—6000=38,100 divided by 1000 (net Dr. balance)=38. 1-10 days back from Feb. 19—average due date, Jan. 12.

38,100 @ 7 per cent for one day=$7.31, interest due Feb. 19. Total due Feb. 19 —$1,007.31.

EXAMPLES OF SINGLE AND DOUBLE AVERAGE AND PROOF.

First Demonstration
Single Average

Focal date May 5th, 30 days to the month.
Statement rendered September 1st

| Debits | | | | |
|---|---|---|---|---|
| Date | No. of days | Amount | Interest | |
| May 5 | 116 | $65 | $1.26 | 7540 |
| June 5 | 86 | 50 | .72 | 4300 |
| July 5 | 56 | 100 | .94 | 5600 |
| August 5 | 26 | 45 | .19 | 1170 |
| September 1st | | | | |
| | | 260 | 3.11 | 18610 |

72 (days back of Sept. 1st) /18610/ 260
Average due date June 19th, interest $3.11

Second Demonstration.

Due Dates, September 1st. 30 days to the month.

| Debits | | Credits | |
|---|---|---|---|
| May 5 | $65.00 | July 1 | $75.00 |
| June 5 | 50.00 | August 1 | 100.00 |
| July 5 | 100.00 | | 175.00 |
| Aug. 5 | 45.00 | | |
| | 260.00 | | |

Operations.

Debits
May 5th to September 1st - 116 days x 65 = 7540
June 5th to September 1st - 86 days x 50 = 4300
July 5th to September 1st - 56 days x 100 = 5600
Aug. 5th to September 1st - 26 days x 45 = 1170
18610

Credits
July 1st to September 1st - 60 days x 75 = 4500.00
Aug. 1st to September 1st - 30 days x 100 = 3000.00
7500.00

18,610 - 7500 = 11,110 85/11,110/ 130 days back from September 1st
Average due date, April 20th.
Interest on balance of $85 from April 20th to September 1st $1.86

Proof by Interest Method.

Divide the number of days by the rate (6%), multiply the quotient by the amount and point off three places from the right.
In case of a fraction, take the nearest divisor and add or subtract as the case may be

| Debits | | | | | |
|---|---|---|---|---|---|
| Days | Amount | | | | Interest |
| 116 | 65.00 | 114 +2 | 19x65 | 1.24 2 | 1.26 |
| | 50.00 | 84 +2 | 14x50 | .70 2 | 72 |
| 56 | 100.00 | 54 +2 | 9x100 | .90 3 | 93 |
| 26 | 45.00 | 24 +2 | 4x45 | .18 2 | .20 311 |
| | | Credits | | | |
| 60 | 75.00 | 60 | 10x75 | | .75 |
| 30 | 100.00 | 30 | 5x100 | | .50 125 |
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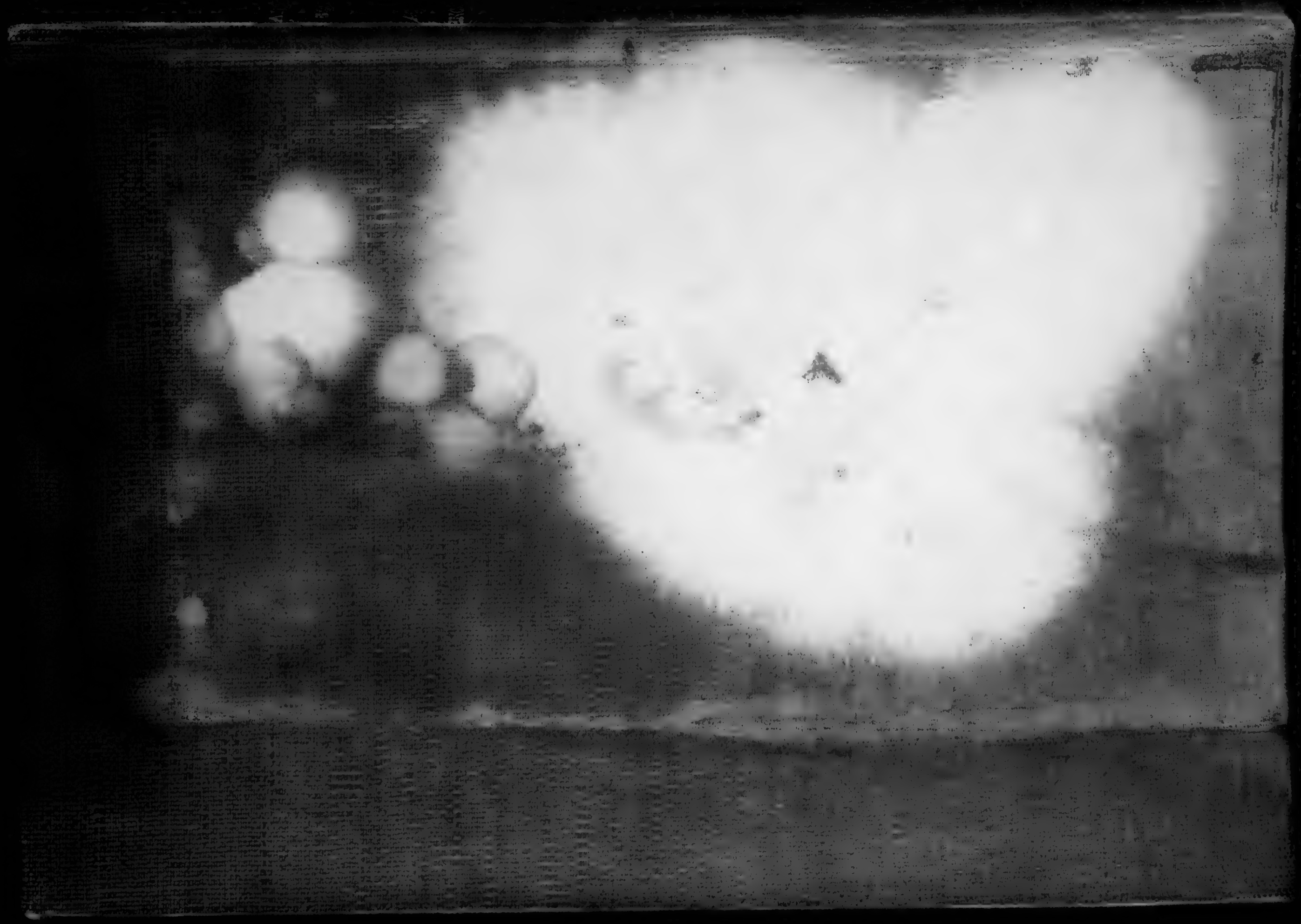

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### (184) BACK ORDERS.

See unfilled or waiting orders.

### (185) BAD DEBTS.

Debts uncollectible and on which there appears to be no prospect of collection.

In preparing financial statements a provision should always be made, not only for debts which are known to be bad, but to offset a probable loss which at the time of calculating profits cannot be anticipated.

### (186) BAD DEBTS RESERVE.

The following method of treating doubtful accounts receivable has been found to work satisfactorily:

In the first place go through your entire accounts and make up a list of those you know to be absolutely worthless. The portion of such accounts contracted during the current year should be charged to "Current Loss" account and the portion of such accounts contracted prior to the current year should be charged to profit and loss account with a suitable journal entry for each.

Accounts not ascertained to be uncollectible, but still considered wholly or partially doubtful, should next be dealt with individually by estimating the probable ultimate loss, and while leaving the accounts in their present condition, provision should be made to meet the loss in the future. This would be done as follows:

In making trial balance show opposite each doubtful account (in addition to the balance of the account and in two extra columns) the estimated probable ultimate loss, showing in the first additional column the estimated loss on accounts or portions of accounts contracted during the current year, and in the other column the estimated probable ultimate loss on accounts or portions of accounts contracted prior to the current year. In addition to providing for accounts you know to be doubtful, you should set aside a certain amount on accounts contracted during the current year, as you have found from past experience a certain percentage of these turn out bad. This amount to go in column No. 1. After you do this, make a journal entry, charging "Current Loss" with the total of column No. 1 and profit and loss account with the total of column No. 2, crediting "Bad Debts Reserve" account in each case. Afterwards when the loss, if any, is ascertained, it will be charged to this "Bad Debts Reserve" account whether it is exactly the estimated amount or not as some will probably be higher and some lower than estimated.

The total of "Current Loss" account should be charged to profit and loss account.

After you go over the accounts at next year's closing date (and before making any further credit to "Bad Debts Reserve" for the estimated current year's probable loss), the total of the column showing the probable losses on accounts contracted prior to the current year, should be compared with the balance remaining in "Bad Debts Reserve" account and if found to exceed the balance of "Bad Debts Reserve" account an entry should be made charging profit and loss and crediting "Bad Debts Reserve" account with sufficient to increase the latter amount to such extent, but if the estimated total of such probable losses on accounts contracted prior to the current year does not exceed the balance of "Bad Debts Reserve" account no such entry will be required.

By this plan your "Current Loss" account will show all losses sustained in connection with accounts contracted during each current year so far as the information available at the close of each year will enable you to estimate the result. In the same manner you will be able to increase "Bad Debts Reserve" account where necessary to fully take care of accounts contracted prior to the current year still remaining unsettled.

## (187) BAKERS' BUSINESS ACCOUNTING METHODS.

MANUFACTURING, WHOLESALE AND RETAIL.—The manufacturing wholesale and retail bakery establishment of the Morton Baking and Manufacturing Company of Detroit possesses one of the most up-to-date accounting systems it is possible to find, arranged by an accounting organization of national reputation, the records all being devised with a view to furnishing the most complete information with the least possible trouble.

Owing to the nature of the business and the unvarying constituents of the product, the problem of obtaining information as to the cost of production is a comparatively simple matter, presenting no special complexities.

STORES. The stores and supplies are charged as received to material and supplies accounts carried in a loose leaf stores ledger. As requisitions are received from the foremen of the departments the material is credited on the stores ledger and debited to the departmental accounts.

The departments in this particular business are:

Bread Sales.
Fried Cake Sales.
Pound Cake Sales.
Cake and Pie Sales.
Merchandise Sales.

The cost of the material and supplies furnished to the departments on





Morton Baking & Manufacturing Co

Date _____

Cocoanut Macaroon & Pound Cake Department Requisition

Should Produce _____ Produced _____

| Foreman Fills | | | To be Filled by Stock-Keeper | | |
|---|---|---|---|---|---|
| Quantity | Unit of Measure | Articles | Price | Per | Amount |
| | Lbs. | Flour | | | |
| | " | " | | | |
| | " | Butter | | | |
| | " | Lard | | | |
| | " | Sugar-(Raw) | | | |
| | " | " | | | |
| | " | Eggs-Frozen | | | |
| | " | " White | | | |
| | Doz. | " | | | |
| | Oz. | Cinnamon | | | |
| | " | Cloves. | | | |
| | " | Color | | | |
| | " | Mace | | | |
| | " | Vanilla | | | |
| | Lbs. | Currants | | | |
| | | Raisins (Sultanas) (Seeded) | | | |
| | | Citron Peel | | | |
| | | Lemon " | | | |
| | | Orange " | | | |
| | No. | Cocoanuts | | | |
| O.K. Signed | | | Total | | |

FORM 1.

requisition, as per Form 1, is filled in by the stock-keeper each day, and the total of these requisitions, therefore, constitutes the cost of the day's raw materials as, with very rare exceptions, all material issued is used on the day of issue.

The quantities of bread, cake, pies, etc., manufactured is based on expected requirements arrived at by general experiences of averages, and as merchandise of this kind does not improve with age it will be understood that there is very little on hand at the close of each day's business transactions, so that inventory of finished product and actual statements of conditions can be readily obtained at any time.

DEPARTMENTAL TRADING ACCOUNTS. As the product of the bakery is received for shipment, or sale, the departmental accounts are credited, thus making of each department account a trading account exhibiting gross profit.

PURCHASES. A separate accounts payable book on the loose leaf plan is carried in which accounts are kept, covering all expenditures for all purposes. This accounts payable book is practically a loose leaf purchase

record as no ledger accounts are kept with creditors. A special column is carried in the cash book for accounts payable, and a controlling account with the accounts payable book is carried in the ledger on the plan generally known, i. e., the controlling account is credited with all purchases entered in the accounts payable book and debited with the total payments made, as per the column provided in the cash book. The balance of the controlling account is then agreed at the end of each month with a recapitulation of unpaid bills obtained from the accounts payable book.

SALES AND CUSTOMERS' ACCOUNTS. The city customers are attended to by wagon. Most of the out-of-town customers have standing orders for certain quantities of bread, etc., each day but are liable, of course, to require extra supplies occasionally. A standing order card is therefore made out for each customer and placed in a file for the next day's deliveries. Any extras are put on a memorandum which is attached to the card. After the deliveries have been made the card is removed to the next day's file. These cards are indexed territorially.

In addition to sales to out-of-town customers there are the city customers, whose business is registered as wagon sales, and retail sales made in the house.

The wagon drivers make out requisitions each night for goods required next day and are furnished with supplies accordingly, the value of which is charged against their personal accounts in a petty ledger. On their return from their rounds the wagon drivers must produce cash and charge tickets to cover the amount debited against them.

The house sales are provided for by a special column in the cash book.

CHECK ON LEDGER POSTINGS. A recapitulation is made daily of all the sales, cash, charge, and wagons, and is made by departments as per Form 3. The total of this recapitulation must agree with the total of the cash sales entered in the cash book plus charge sales. The amounts of the charge sales are obtained from the day's ledger posting, thus furnishing a proof at the same time of the accuracy of those postings, so far as the total amount is concerned.

SALES AND CUSTOMERS' LEDGER ACCOUNT. Owing to the style of ledger used it is not very easy to post a charge to the wrong account so that the check above described is generally satisfactory and efficient. The customer's ledger is a loose leaf arrangement, allowing two pages, or one opening, to each account. On the right hand page the daily charges are entered in duplicate, so that at the end of the month the original of this right hand page is footed up and mailed to the customer as a statement. The amount of this statement is debited to the regular customer's ledger





Sheet No._____ Morton Baking & Manufacturing Co

Cash Received for Month of_____ 190____

| Day | Name or Description | Miscellaneous | SALES LEDGER Total Credit | Discount | Net Amt. Received | Wagon Sales | House Sales | Daily Total Deposited |
|---|---|---|---|---|---|---|---|---|
| | Forward | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | Forward | | | | | | | |

FORM 2.

MORTON BAKING & MANUFACTURING CO
DETROIT, MICH

BUSINESS STATEMENT OF DEPARTMENT RESULTS_____ 190_____

| DESCRIPTION | Per Ct. of Sales | ACCT. NO. | RETAIL | TOTAL |
|---|---|---|---|---|
| BREAD DEPT. EXPENSES | | | | |
| Men'l'g Labor | | 86 | | |
| Supplies Used | | 87 | | |
| " Rebags & Wrapping | | 88 | | |
| Shipping Labor | | 89 | | |
| Extras | | 90 | | |
| Wagon Men's—Wages | | 91 | | |
| " " —Com'n | | 92 | | |
| Dep'n.—Wagons | | 93 | | |
| Mnte.—Wagons | | 94 | | |
| Dep'n.—Plant | | 96 | | |
| " —Insurance | | 96 | | |
| " —Taxes | | 97 | | |
| " —Light | | 98 | | |
| " —Power | | 99 | | |
| " —Fuel | | 100 | | |
| " —Water | | 101 | | |
| | | 102 | | |
| | | 103 | | |
| Pro-Rata of Gen'l Ex. | | | | |
| Net Dept. Profit | | | | |
| Bread Sales | | 104 | | |
| Cake and Pie | | | | |
| DEP'T EXPENSES | | | | |
| Men'l'g Labor | | 104 | | |
| Supplies Used | | 105 | | |
| " Rebags & Wrapping | | 106 | | |
| Wagon Men's—Wages | | 107 | | |
| " " —Com'n | | 108 | | |
| Mnte'y—Repairs | | 109 | | |
| Dep'n. " | | 110 | | |
| " Real | | 111 | | |
| " Insurance | | 112 | | |
| " Taxes | | 113 | | |
| " Light | | 114 | | |
| " Power | | 115 | | |
| " Fuel | | 116 | | |
| " Water | | 117 | | |
| | | 118 | | |
| | | 119 | | |
| Pro Rata of Gen. Ex. | | | | |
| Net Dept. Profit | | | | |
| Cake and Pie Sales | | 154 | | |
| RECAPITULATION | | | | |
| Assets | | | | |
| Liabilities | | | | |
| Expenses | | | | |
| Sales | | | | |
| Total Balance | | | | |

| DESCRIPTION | Per Ct. of Sales | ACCT. NO. | RETAIL | TOTAL |
|---|---|---|---|---|
| Occount-Mezzanine and Pound-Cake DEPARTMENT | | | | |
| Men'l'g—Labor | | 120 | | |
| Supplies Used | | 121 | | |
| " Rebags & Wrapping | | 122 | | |
| Shipping Labor | | 123 | | |
| Freight | | 124 | | |
| Wagon Men's—Wages | | 125 | | |
| " " —Com'n | | 126 | | |
| Salesman's " | | 127 | | |
| Mach'y Repairs | | 128 | | |
| Dept. " | | 129 | | |
| " Real | | 130 | | |
| " Insurance | | 131 | | |
| " Taxes | | 132 | | |
| " Light | | 133 | | |
| " Power | | 134 | | |
| " Fuel | | 135 | | |
| " Water | | 136 | | |
| | | 137 | | |
| | | 138 | | |
| Pro-Rata of Gen'l Ex. | | | | |
| Net Dept. Profit | | | | |
| Cake-Mez. & Pound Cake Sales | | 155 | | |
| Fruit-Cake DEPT. EXPENSES | | | | |
| Men'l'g Labor | | 139 | | |
| Supplies Used | | 140 | | |
| " Rebags & Wrapping | | 141 | | |
| Wagon Men's—Wages | | 142 | | |
| " " —Com'n | | 143 | | |
| Mach'y Repairs | | 144 | | |
| Dept. " | | 145 | | |
| " Real | | 146 | | |
| " Insurance | | 147 | | |
| " Taxes | | 148 | | |
| " Light | | 149 | | |
| " Power | | 150 | | |
| " Fuel | | 151 | | |
| " Water | | 152 | | |
| Pro-Rata of Gen. Ex. | | | | |
| Net Dept. Profit | | | | |
| Fruit-Cake Sales | | 157 | | |
| Rent Revenue | | 158 | | |
| Total Sales Dept. | | | | |
| Credit Discount | | 159 | | |
| Misc. Sales | | 160 | | |
| Total Rec. | | | | |
| Less Total Expenses | | | | |
| Earnings to Date | | | | |

FORM 4. FRONT.

account, which is on the left hand page, making one posting per month.

Invoices are made to customers in duplicate before the order is filled. The shipping tags are attached to the duplicate bills and sent to the shipping room. The original bill is placed in the package delivered to the customer.

In the cash book special columns are provided on the cash received side for accounts receivable, wagon sales (from drivers), and house sales (retail department). The total receipts are deposited each day. All expenditures are made by check. The imprest petty cash system is used which may be described as follows:

An account in the general ledger with petty cash is opened and a check drawn for an amount sufficient to cover a week's or month's expenditures, charging same either to petty cash account, or to cashier through general cash book. All expenditures are entered as made in the petty cash book, and either daily or weekly such expenditures are O. K.'d by a responsible officer of the business. At the end of the arranged period the totals of the petty cash columns are carried into the general cash book and the cashier, or the petty cash account, credited with the amount.

GENERAL LEDGER. A general ledger is carried, containing the usual representative, revenue and asset accounts, also controlling account with accounts receivable ledger. This controlling account is debited with the total credit sales and credited at the end of each month with the total of the sales ledger net and discount columns. The balance then of this account must agree with the total of the individual balances of the accounts carried in the sales ledger.

In this business monthly statistics are obtained and the profits shown by each department are credited at the end of each month to surplus account. This practice is, of course, a matter of convenience, and in a large number of similar businesses it would, no doubt, be considered unnecessary to close the books each month.

Very important blanks are those headed "Business" and "Department Statements," covering the monthly balance sheet and profit and loss account, detailed record of inventories, distribution of general expense, and details of the department expenses. It will be noted that the general expense is prorated over the departments so that when the department expense plus percentage of general expense is deducted from the sales the actual net department profit is obtained.

There is also the question of keeping track of the delivery wagons, so that the amount of bread delivered can be checked with the amount charged according to the driver's reports and the amount returned by the driver. One method very much used in this connection is to furnish each





MORTON BAKING & MANUFACTURING CO.
DETROIT, MICH.

BUSINESS STATEMENT CLOSE OF 19[illegible]

| DESCRIPTION | ACCT. NO. | DETAIL | TOTAL | DESCRIPTION | ACCT. NO. | DETAIL | TOTAL |
|---|---|---|---|---|---|---|---|
| CASH ASSETS | | | | OUTSIDE LIABILITIES | | | |
| Office Fund | 1 | | | Notes Payable | 44 | | |
| Bank Balance | 2 | | | Accounts Payable | 45 | | |
| Unexpired Insurance | 3 | | | Accrued Taxes | 46 | | |
| | 4 | | | " " Interest | 47 | | |
| | 5 | | | | 48 | | |
| | | | | | 49 | | |
| BOOK ACCOUNTS | | | | | 50 | | |
| Accts. Rec. Sales Led. No. 1 | 6 | | | | | | |
| " " " " " " 2 | 7 | | | PERSONAL ACCOUNTS | | | |
| | 8 | | | | 51 | | |
| | 9 | | | | 52 | | |
| | 10 | | | | 53 | | |
| | 11 | | | | 54 | | |
| | 12 | | | | 55 | | |
| | 13 | | | | | | |
| | 14 | | | CAPITAL ACCOUNTS | | | |
| EQUIPMENT INVENTORY | | | | Capital Stock | 56 | | |
| Bread Dept. Mchy. | 15 | | | Surplus | 57 | | |
| " " Tools and Utensils | 16 | | | Reserve for Depreciation | 58 | | |
| Cake and Pie " " | 17 | | | " " Losses | 59 | | |
| " " " Mchy. | 18 | | | | 60 | | |
| Fried Cake Mchy. | 19 | | | Total Liabilities | 61 | | |
| " " Tools and Utensils | 20 | | | | | | |
| Coco Mac & P. O. Tools & Utensils | 21 | | | GENERAL EXPENSES | | | |
| " " " " Mchy. | 22 | | | Rent—Offices | 62 | | |
| Steam Mchy. | 23 | | | Expired Insurance | 63 | | |
| " Tools and Utensils | 24 | | | Taxes | 64 | | |
| Horses | 25 | | | Telephone | 65 | | |
| Wagons | 26 | | | Postage | 66 | | |
| Harness | 27 | | | Advertising Expense | 67 | | |
| Store Room Fixtures | 28 | | | " Sampling | 68 | | |
| " " Mchy. | 29 | | | Office " | 69 | | |
| " " Tools and Utensils | 30 | | | " Salaries | 70 | | |
| Retail Dept. Mchy. | 31 | | | Stable Labor | 71 | | |
| " " Tools and Utensils | 32 | | | " Feed | 72 | | |
| Office Furniture | 33 | | | " Shoeing | 73 | | |
| " Fixtures | 34 | | | Horse Expense | 74 | | |
| | 35 | | | Wagon " | 75 | | |
| STORE INVENTORY | | | | Harness " | 76 | | |
| Store Room Supplies | 36 | | | Store Room Expense | 77 | | |
| Advertising " | 37 | | | Traveling " | 78 | | |
| Feed " | 38 | | | Donations | 79 | | |
| Fuel " | 39 | | | | 80 | | |
| Office " | 40 | | | | 81 | | |
| Repair " | 41 | | | | 82 | | |
| | 42 | | | | 83 | | |
| Total Assets | 43 | | | Total Gen'l Expense | 84 | | |
| | | | | | 85 | | |

Morton Baking & Manufacturing Co. Driver No. _____

Recapitulation of sales made by _____ For _____ 190__

| Day | Bread Sales | | Fried-Cake Sales | | Coco-Mac. and Pound Cake Sales | | Cake and Pie Sales | | Merchandise Sales | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Quantity | Amount | Quantity | Amount | Quantity | Amount | Quantity | Amount | Description | Amount |
| | | | | | | | | | Sales Recap. | |
| | | | | | | | | | Bread | |
| | | | | | | | | | Fried Cake | |
| | | | | | | | | | Coco-Mac. and Pound Cake | |
| | | | | | | | | | Cake & Pie | |
| Total Sales | | | | | | | | | | |
| Less Returns | | | | | | | | | | |
| Net Sales | | | | | | | | | | |
| Averages | | | | | | | | | | |

FORMS 3, AND 4 BACK.

driver with a ticket on which will be entered the amount of supplies taken out by him, with space provided so that he can record on this ticket the supplies delivered, where delivered, cash received, amount to be charged, etc. On his return to the store, these tickets are checked over and the balance of supplies not accounted for compared with the driver's returns.

A good check on the honesty of drivers who deliver to customers in the city is to provide a form of triplicate order blank. The original may be used as the customer's bill, the duplicate retained in the office, and the triplicate sent to the shipping room. The latter should be provided with a form of receipt at the foot, detachable by perforation, so that the customer may acknowledge the delivery of the goods by signing same.

After this triplicate has been used for the checking of the order as received for delivery, it will be placed in the hands of the teamster who is to deliver the goods.

### (188) BALANCE.

The difference between the debit and credit side of an account.

"The surplus, or deficiency, shown on a balance sheet, or profit and loss account."

The inherent quality in the system of double-entry book-keeping, whereby every debit entry must have its offsetting credit entry, and every credit entry must have its offsetting debit entry.

### (189) BALANCE ACCOUNT.

A summary account into which, at a given date, the balances of other accounts are transferred.

In France the system is used of establishing a balance account when closing the books. All outstanding balances, debit or credit, are transferred to this account.

See adjustment and controlling accounts.

### (190) BALANCE LEDGER.

A ledger containing separate columns for the exhibition of daily, weekly or monthly balances.

It has at all times been found useful to show the balance of a ledger account at frequent intervals, so that it has now become quite customary to provide a special column for the purpose. The prominent display of the balances in customers' ledgers is a great aid to the credit man, especially if a due date column is provided in front of the balance column in which the due dates are brought forward.

The provision of balance columns also does away with the old-

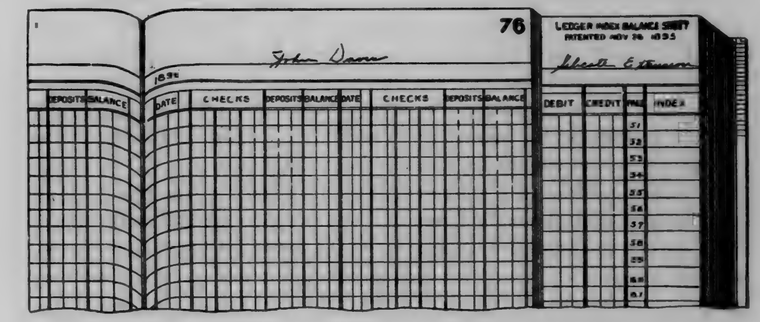




fashioned method of ruling off accounts each month and bringing down the balances, which absorbs, or wastes, a great deal of entirely unnecessary time, interferes with the convenient chcking off of bills paid, and increases the possibilities of error. The monthly ruling off of nominal, or representative, accounts is especially to be discouraged, as it is absolutely essential for the convenient preparation of comparative statistics that the totals of debits and credits of these accounts be obtainable at any time without labor of "digging."

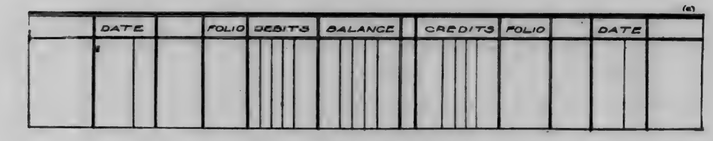
The separate balance column is also a great improvement on that other old-fashioned plan of disfiguring the ledger pages with balances written in pencil.

As instances of well-known balance ledgers, we may cite the Boston bank ledger, the "Safeguard" commercial ledger; the Havill bank ledger,




in which a silicate margin is attached to the right hand side of the ledger, on which the daily balances of changing accounts are entered by erasing the old balances with a soft rubber and writing the new balances from the accounts. This is a very useful device for bank ledgers where a daily balance is a necessity; but would not be practicable in any ordinary commercial business where there are a large number of accounts receivable. The Havill balance ledger carries accounts in the old-style way, but with the improved Boston bank ledger columnar ruling. The lines on the silicate strip on the margin are numbered to correspond with a similar number of pages containing accounts. Thus, if the number of lines on the ledger page is 80, the silicate strip will show the balances of 80 accounts, thus giving an opportunity to sectionalize in proving when desired.

Other examples of balance ledgers will be found in the popular loose leaf forms, such as the following:




## (191) BALANCE SHEET.

A statement of actual assets and liabilities at a given date designed to exhibit the financial condition of a business. It consists of the balances of assets and liabilities accounts extracted from the ledger after inventory has been taken and the nominal accounts have been closed into profit and loss, and of outstanding resources or liabilities not included in the books of account.

The excess of assets over liabilities represents the profit made by the operations of the business during the period covered by the statement; the excess of liabilities over assets represents a loss. This surplus, or deficiency, is the balance of the balance sheet, and must agree with the balance of the current profit and loss account.

Items such as "surplus," "reserve," "undivided profit," etc., having separate accounts in the ledger, are in reality sections of the balance of the balance sheet, and should be classified accordingly.

"A balance sheet is a statement showing upon one side the assets of the person or firm in question, and on the other side the liabilities. If the assets exceed the liabilities the surplus is the capital of the person or firm, and is entered on the liabilities' side so that the totals of both sides may agree. On the other hand, should the liabilities exceed the assets, the difference is called a deficiency, or capital overdrawn, and is entered on the assets' side."

"A balance sheet is a list of the ledger balances of a system of books kept by double entry, which has been extracted after the nominal accounts have been closed. It is therefore a list of assets and liabilities, and shows the financial position of the undertaking as at the date thereof."

How to Prepare a Balance Sheet. After the trial balance has been properly taken, together with complete inventories of merchandise, etc., and all the current liabilities entered up, the next step is to close the profit and loss accounts in the ledger, transferring the balances through the regular journal, or through a private journal, which frequently accompanies the special ledger in which are carried the nominal accounts. The balance of these accounts will then show the net profit or loss made during the period included.

Before closing the merchandise or other accounts, in relation to which





inventories have been taken, it is necessary to credit the amount of the inventory at date of closing, carrying the amount of the inventory forward as a debit balance for the new year, or fiscal period. If the total credits of such account are then in excess of the total debits, the difference shows the gross profit and is transferred to the profit and loss account.

The accounts remaining open on the ledger after the elimination of the profit and loss accounts as above described, and the addition of the inventories, will constitute a balance sheet.

Classification of Accounts. Considerable differences have always arisen among accountants in regard to both the classification of accounts on balance sheets, and the proper form which can be used with the best results. With regard to classification, Dicksee prefers the following:

Liabilities. "Upon the liability of a balance sheet the most prominent item—in case of a limited company, at least—is the shareholders' capital, which, of course, can only be increased beyond its original limit, or reduced, after due compliance with important legal technicalities. In stating the capital account, it is desirable to show, first, the nominal capital, i. e., the limit sanctioned by the memorandum of association; secondly, the number and value of each class of shares issued and the amount called up thereon, from which should be deducted the amount of calls in arrear, stating the number of shares upon which such calls are due. In France, and also in South America, it is usual to state the full amount of the capital issue as a liability, and the amount uncalled as an asset; but this is not at all a desirable form to adopt, as it can hardly be said that uncalled capital is more than a contingent asset.

"The next item to be stated is the amount paid up upon shares forfeited, when such shares have not been re-issued by the company; when they are re-issued this item may appropriately be absorbed in the reserve fund.

"Next comes the amount due upon debentures, the amount extended being the nominal amount; or, in the case of debentures issued at a discount, the amount actually received. In the latter case, however, the nominal amount should also be stated, and in both cases the rate of interest should be mentioned. The appropriate place for premiums received upon issues of either shares or debentures is in the reserve fund.

"The next item upon the balance sheet will be the amount due upon mortgage, which, like most debentures, constitutes a preferential liability, and ordinarily speaking is practically permanent. The rate of interest should be stated here also.

"Next comes the ordinary liabilities of the company, which may be separated under the following sub-headings:

(a) Debts for which acceptances have been given.
(b) Debts to tradesmen for supplies of stock-in-trade and other articles.
(c) Debts for law expenses.
(d) Debts for interest upon debentures and other loans.
(e) Unclaimed dividends.
(f) Debts not enumerated above.

"The next item upon the liability side is for 'Reserve Fund, showing the amount set aside from profits to meet contingencies.'

"The last item upon this side of the balance sheet is the balance of undivided profit. It is preferable to show this balance without elaboration upon the balance sheet and in a 'Profit and Loss Apportionment Account' (or the last section of the profit and loss account) to show the connection between the balance shown upon the balance sheet and the balance of the profit and loss account for the current period. There is, however, no more serious objection to showing the details upon the balance sheet except that it does not appear to present the facts of the case so clearly.

"With the question of contingent liabilities it is not necessary to deal at length, beyond stating that all such liabilities must be noted upon the balance sheet, even if it is anticipated that they will not ultimately result in a claim against the company."

ASSETS. Fixed assets, such as freehold land, leasehold land and leasehold buildings stated separately.

Floating assets, such as stock-in-trade and plant; debts considered good, for which the company holds security; debts considered good, for which the company holds no security; debts considered doubtful and bad.

Investments which should be stated in some detail, and if on account of reserve fund, or sinking fund, the circumstances should be clearly stated.

Cash on hand and cash at bankers on deposit.

At the first examination of the C. P. A.'s of New York, the following classification was given official approval:—

ASSETS. "Commencing with the most available asset, namely, cash, the amounts lodged in the several banks, and the amount in hand are separately stated and the figures placed in the indent or first column adjoining the text and the total extended into the next or final column.

The properties actually in the possession of the estate, such as land, buildings, plant, equipment and stock-in-trade, should be stated next, placing the separate values of each in the first column and extending the total of all into the outer column giving full particulars of deductions for depreciation and basis of valuation to the extent that responsibility therefor is to be assumed.





Bills receivable being more enforceable or generally more readily realized upon would take precedence over open book accounts in the order of arrangement, and the latter should be classified into good and doubtful, and necessary provision for losses on bad accounts should be shown as well as reserve for customary discounts by deducting from the aggregate sum the amounts respectively charged against the profits to provide for such contingencies.

All actual assets thus available for the satisfaction of the liabilities in the event of liquidation should be first stated and totaled before any quasi or speculative assets, such as claims against the private estates of partners when any question as to their realization may exist (as where the same are unsecured or constitute capital deficits), patent rights, good will, or similar conditional values.

LIABILITIES. Mortgages against the realty, with reference to the properties stated contra, upon which they are encumbrances, loans secured by collateral pledged therefor, and similar items would rank first against the assets.

Bills payable or other written pledges would precede unsecured trade creditors on open account.

After stating and totaling all the liabilities and obligations to outside creditors it would then be proper to state the various reserve accounts and the capital accounts.

A balance sheet thus framed will show first in classified form the actual assets as opposed and in juxtaposition to the actual liabilities, and the total of each, and thereafter the capital or surplus, or both, as qualified by reserves and opposed to speculative or conditional values.

If the capital precedes the liabilities in the same column the total liabilities exclusive of the capital, is not shown, and if conditional values are first among the assets, or alternate with them in the order of arrangement the actual assets are not shown, and the degree in which the capital as stated on the balance sheet may be qualified by reserves or surplus as augmenting features, or by fictitious or uncertain assets as diminishing features cannot be expressed without a rearrangement of the statement.

The ledger folio from which the balance is taken should be prefixed to each account stated on a balance sheet.

It will be noticed that in the first form of classification above mentioned, the capital of the business is the first item on the liability side of the balance sheet, while in the second capital reserve, undivided profits, etc., come last. We append a sample of the American balance sheet and of the English balance sheet, showing the differences. It will also be noticed that in the former the real assets are scheduled together and

totaled, after which speculative or doubtful assets are added. In the same way the outside liabilities are scheduled together and totaled and capital, etc., added. Inasmuch, however, as capital is as much a liability of a business as an outside liability, the advantage of this particular classification is somewhat obscure unless it is intended as a comparison of trade assets with trade liabilities.

(192) CONTINENTAL AND AMERICAN FORM OF BALANCE SHEET.

| ASSETS. | LIABILITIES. |
|---|---|
| Cash on hand. | Mortgages. |
| Cash at bank. | Bonds. |
| Investments, as per Schedule A. | Interest due and accrued. |
| Real estate. | Accounts payable. |
| Plant, machinery, etc. | Bills payable. |
| Inventories. | Unpaid taxes, wages, etc. |
| Accounts receivable. | Capital stock. |
| Bills receivable. | Reserve for depreciation. |
| Good will. | Reserve for discounts on Bills Receivable |
| Patents, copyrights, etc. | Reserve for doubtful and bad accounts. |
| | Surplus. |

(193) ENGLISH REGISTERED COMPANY FORM OF BALANCE SHEET.

| LIABILITIES. | ASSETS. |
|---|---|
| Nominal capital (.....). | Leasehold buildings at —— (.....). |
| Capital subscribed (.....). | Less depreciation. |
| Less calls in arrear. | Stock-in-trade (at cost) viz: |
| Debenture stock (.....). | Materials, |
| Bills payable. | Goods unfinished, |
| Sundry creditors. | Manufactured goods. |
| Interest on debentures. | Plant and machinery:— |
| Unpaid dividends. | Value 1st January, 1892, |
| Reserve fund. | Additions during the year, |
| Profit and loss account (balance available for dividends, etc.) | Less depreciation. |
| | Warehouse and office fittings:— |
| | Value 1st January, 1892, |
| | Less depreciation. |
| | Bills receivable. |
| | Sundry debtors. |
| | Investment of reserve fund. |
| | Debenture stock at .... |
| | Cash:— |
| | At bank. |
| | In hand. |

There is also a double account form of balance sheet, used more particularly by English railroads, in which a balance sheet is divided into two portions, "one showing expenditure, and the other the capital raised to meet such expenditure, while the second section, or general balance sheet, contains what may be conveniently called 'Floating Assets and Liabilities' arising incidentally in the course of carrying on the undertaking." An illustration of this form of classification is also appended.





(194) FORM OF DOUBLE ACCOUNT BALANCE SHEET.

CAPITAL ACCOUNT.

| Dr. | Cr. |
|---|---|
| 1. To Land and freehold buildings, | By Ordinary shares of .... each .... |
| 2. " Leasehold buildings. | per share paid. |
| 3. " Generating machinery and tools. | " Debentures paid up. |
| 4. " Accumulators. motor transformers and apparatus in sub-stations. | |
| 5. " Mains. | |
| 6. " Meters. | |
| 7. " Electrical instruments. | |
| 8. " Furniture for office. | |
| Less renewals and depreciation Fund account No. VI. | |

(195) GENERAL BALANCE SHEET.

| Dr. | Cr. |
|---|---|
| 1. To Capital account— | 1. By Capital account— |
| Amount received as per account No. III. | Amount expended as per account No. III. |
| 3. " Sundry creditors. | Less renewals and depreciation fund account. |
| 4. " Net revenue account— | 2. " Stores on hand— |
| Balance at credit thereof. | Coal oil, waste, etc. |
| | General stores, including work in progress. |
| | 5. " Sundry debtors for current supplied, etc. |
| | Less bad debts deducted. |
| | 6. " Sundry debtors for interest on calls in arrear. |
| | 7. " Cash at bankers and in hand. |

POSITION OF ASSETS AND LIABILITIES ON THE BALANCE SHEET. While the American and Continental accountants generally place assets on the left-hand side and liabilities on the right-hand side, English chartered accountants have, for a long time, followed the opposite course; so long, in fact, that it seems to be quite difficult for them to understand the reasons for the use of other methods. In Dicksee's auditing, it is stated that "some years ago it was not unusual to find balance sheets stated with the assets upon the left-hand side and the liabilities upon the right-hand side. The circumstance is, doubtless, at first sight curious." From this quotation the reader would necessarily imagine that the custom referred to was absolutely obsolete, and it entirely ignores the fact that the large majority of accountants still use the methods referred to as being not unusual some years ago.

In the American Accountants' Manual, which contains the views of the certified accountants of New York, this question is gone into at great length, but as a matter of fact, it is simply and entirely a matter of form which is of no importance, and a great deal too much fuss has been made

about it. If the English accountants prefer to place their liabilities on the left-hand side, they may do so, we hope, without preventing other accountants from placing them on the right-hand side, nor can the former assert any legal or other authority for making their method a standard even in Great Britain. The arguments in favor of the English Chartered Accountants' method appear largely to be based upon the idea that the balance sheet is made out by the business to the proprietor. The proprietor is therefore debited with the liabilities incurred and credited with the assets on hand.

SPECIAL ITEMS. There are a number of components of a balance sheet which are, to a certain extent, unusual, and which, therefore, invariably cause a considerable amount of trouble to the inexperienced bookkeeper who desires some authority by which he can ascertain their proper disposition. Some of these we will now proceed to illustrate.

(a) WAGES ACCRUED BUT NOT PAYABLE. These should be included as a liability.

(b) UNEXPIRED INSURANCE. A proper proportion should be included as an asset. Unexpired licenses should be treated in the same manner.

(c) ACCOUNTS RECEIVABLE. An accurate balance sheet should include a reserve for probable bad debts. We believe it to be a fact that a certain percentage of accounts receivable are never realized, and this percentage should not be included in the divisible profits.

(d) PLANT, MACHINERY, ETC. A certain percentage should be written off annually from any asset which is liable to depreciation, otherwise a portion of dividend will be paid out of capital as well as from profits.

(e) EXCESS OF CAPITAL. In a partnership business, if one partner draws less than his share of the profits and allows it to remain in the business as working capital, he is entitled to interest unless otherwise specifically provided in the partnership agreement.

(f) RESERVE is a portion of undivided profits, and is, to a large extent, synonymous with surplus.

(g) DISCOUNTS FROM ACCOUNTS RECEIVABLE. As a rule, sales are charged to customers, less trade discount. Where they are charged gross, of course, it would be necessary always to deduct the trade discount in making up the balance sheet.

With regard to cash discounts, it may be safer to take off, say 2 per cent as a reserve against possible discounts of this kind, but as the amount of cash discount taken advantage of is extremely irregular and uncertain, it is quite legitimate to ignore it.

(h) PRESENT VALUE. Articles, the value of which is subject to





market fluctuations, should always be included in the balance sheet at present market price. This is a generally recognized principle, but is very rarely carried out. If, for instance, goods are purchased at a price, the market value of which subsequently declines and which may shortly again appreciate, the proprietors of the business naturally object to reducing profits which they consider to be only fictitiously and temporarily affected.

(i) INTEREST. Interest charged upon uncollectible loans or bad investments should be written off to profit and loss.

(j) PRELIMINARY EXPENSES OF PROMOTION. These may be with propriety spread over the first few years after a company's incorporation, so that the total expense of promotion does not come out of the first year's profits.

With regard to liabilities accrued, but not payable, and similar items, it is usual to include them in the balance sheet without incorporating them in the ledger. If, however, the balance sheet is desired to be an exact record of balances shown on the ledger, accounts can be opened in this way: Charge wages account and credit unpaid wages account. When the wages are paid cash is credited and unpaid wages account debited with the amount, thus closing the account.

(196) THE BALANCE SHEET AND THE STATEMENT OF ASSETS AND LIABILITIES.

A text-book defines the difference between these two accounting forms as follows:

"'Statement of affairs' is a term generally used to describe the statements of assets and liabilities prepared in bankruptcy and insolvency cases. It is also frequently used in connection with the accounts of retail traders, who keep their books by single entry, or who have kept no proper books enabling a balance sheet to be prepared.

"Balance Sheet is the term almost universally applied to the statements of assets and liabilities of ordinary going concerns, or of concerns, the books of which have been correctly kept by double entry. The tendency rather is to restrict the application of the term 'balance sheet' to these latter cases, and to use the term 'Statement of Assets and Liabilities,' in the frequent instances where we are called in to ascertain a trader's position, and have to make up the statement from imperfect books, and where we have practically no such means of testing the completeness and the arithmetical accuracy of the statement, as a set of books kept by double entry affords."

As a matter of fact, however, what used to be called the balance sheet is now preferably known as the "Statement of Assets and Liabilities" or the "Statement of Affairs of a Business." The reason of this preference is

obvious. In making up a correct statement of the assets and liabilities of a business, the accountant must include unscheduled liabilities which may have been partly or wholly incurred and discard unearned assets. For instance, an insurance company must not schedule unearned premiums as assets, but only that proportion of the premium actually earned to date. It is evident, therefore, that the statement of assets and liabilities will not agree with the regular books or show the balances shown by the books. It will, however, be a more correct representation of the condition of the business than any balance sheet drawn from the books, and this statement is, therefore, appropriately named "Statement of Assets and Liabilities."

Objection is sometimes made that as expenditures are frequently included on the asset side of the balance sheet for the reason that the full benefit of such expenditures will be spread over a considerable period of time, the headings "Assets" and "Liabilities" are incorrect, or to that extent, misleading. While we do not consider this objection to be of any real importance this may be a convenient time to recommend a new definition for the balance sheet.

It is true that it includes an exhibit of the actual assets and liabilities of a business, but it also includes other things. It includes what we may term "Potential" assets, i. e., expenditures which are carried on the books on account of the possible actual assets which may be derived therefrom hereafter.

It is well understood that an expenditure made for the purpose of acquiring fixed assets is accepted as a capital expenditure and takes its place on the asset side of the balance sheet. These potential assets represent expenditures which are expected to result in the acquisition of revenue. The former represent fixed assets—the latter floating assets.

It is evident, therefore, that the balance sheet represents not only current assets and liabilities, but future expected assets, liabilities and revenues; and as a result the ordinary balance sheet does not represent the actual condition of a concern but simply an approximation.

Under these circumstances we recommend that the term "Balance Sheet" be discontinued and the substitution of "Approximate Statement of Affairs."

### (197) WORKING BALANCE SHEET.

This is a technical, distinctive term applied to a preliminary statement of assets and liabilities, trading and profit and loss items, intended to facilitate the correct distribution from the trial balance. The illustration here given relates to a business consisting of three departments, and exhibits very clearly the agreement between the net profit shown in





WORKING BALANCE SHEET.

| Accounts | Trial Balance Dr. | Trial Balance Cr. | Trading Account Hats Dr. | Trading Account Hats Cr. | Trading Account Gloves Dr. | Trading Account Gloves Cr. | Trading Account Hosiery Dr. | Trading Account Hosiery Cr. | Profit & Loss Dr. | Profit & Loss Cr. | Balance Sheet Dr. | Balance Sheet Cr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 City Accounts Receivable | 1914 42 | | | | | | | | | | 1914 42 | |
| 4 Country Accounts Receivable | 2652 85 | | | | | | | | | | 2652 85 | |
| 1 Cash | 345 75 | | | | | | | | | | 345 75 | |
| 2 Goods | 3321 63 | | | | | | | | | | 3321 63 | |
| 5 Fixtures and Fittings | 500 00 | | | | | | | | | | 500 00 | |
| 12 Hats-Purchases and Freight | 1089 90 | | 1089 90 | | | | | | | | | |
| " Returns and Allowances | | 64 50 | | 64 50 | | | | | | | | |
| " Sales (Special) | | 2191 40 | | 2191 40 | | | | | | | | |
| " Inventory | | 600 | | 600 | | | | | | | | |
| 12 Gloves-Purchases and Freight | 803 25 | | | | 803 25 | | | | | | 401 75 | |
| " Returns and Allowances | 35 00 | | | | 35 00 | | | | | | | |
| " Sales | | 1516 75 | | | | 1516 75 | | | | | | |
| " Inventory | | | | | | | | | | | | |
| 10 Hosiery-Purchases and Freight | 1324 50 | | | | | | 1324 50 | | | | 378 62 | |
| " Returns and Allowances | 48 75 | | | | | | 48 75 | | | | | |
| " Sales | | 2463 25 | | | | | | 2463 25 | | | | |
| " Inventory | | | | | | | | | | | 596 28 | |
| 9 Expense | 825 00 | | | | | | | | 825 00 | | | |
| 10 " Inventory | | | | | | | | | | 81 50 | | |
| 11 Freight | 47 60 | | | | | | | | 47 60 | | | |
| 15 Wages | 1185 75 | | | | | | | | 1185 75 | | | |
| 6 Accounts Payable | | 1985 50 | | | | | | | | | | 1985 50 |
| 7 Bills Payable | | 1000 00 | | | | | | | | | | 1000 00 |
| 1 Capital | | 5000 00 | | | | | | | | | | 5000 00 |
| | 14162 30 | 14162 30 | 1154 40 | 2599 15 | 838 25 | 1895 37 | 1373 25 | 3059 53 | 2059 53 | 81 50 | 10117 80 | 10117 80 |
| 16 Profit - Hats | | | | | | | | | 1444 75 | 1444 75 | | |
| 17 " Gloves | | | | | | | | | 1058 12 | 1058 12 | | |
| 18 " Hosiery | | | | | | | | | 1681 28 | 1681 28 | | |
| 19 Net Profit | | | | | | | | | 2132 30 | | 2132 30 | |
| | | | 2599 15 | 2599 15 | 1895 37 | 1895 37 | 3059 53 | 3059 53 | 8118 75 | 8118 75 | 10117 80 | 10117 80 |

the profit and loss account and the surplus exhibited in the balance sheet.

The following criticism of this form of balance sheet is quoted from The American Accountants' Manual:

"While this form affords an excellent illustration of the process of roughly analyzing a trial balance preparatory to framing a balance sheet and a revenue account, it is but a working paper and incapable of giving the adequate expression to the contemplated articulation and relation of values called for in a balance sheet suitable for presentation as a financial statement. It is only because of the fact that the works in which it appears hold out to the student as the form of balance sheet, and it consequently (although seldom) appears under such title as a finished statement, that any notice whatsoever is given to it in this work, as from an accountancy standpoint it is valueless, its manifest limitations not admitting of its use even as a working paper. It therefore can be only regarded as a somewhat neat, schoolroom exercise, and that, no doubt, is all its originator intended it should be."

### (198) MUNICIPAL BALANCE SHEET.

Municipal accounting as at present developed differs from commercial accounting in that there is actually nothing that comes under the heading of capital, and the constitution of the balance sheet differs therefore from the commercial balance sheet in that respect. Some accountants however, regard the surplus of assets over liabilities as capital, as will be seen from the attached specification for a municipal balance sheet designed by F. H. Macpherson, C. A.

Some municipalities present a general balance sheet in which funded debts, notes and trusts are listed as capital liabilities. The fixed assets and sinking funds are listed as capital assets.

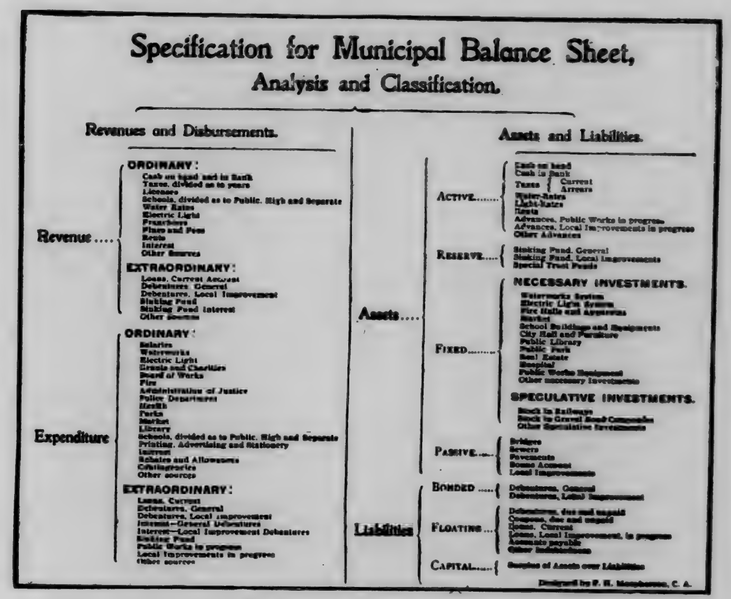
Some municipalities present separate balance sheets of the current assets and liabilities, as per illustration, while others submit separate balance sheets for each fund, as per example.

CURRENT ASSETS.

| | |
|---|---|
| Cash in Treasury for general purposes | |
| Uncollected Taxes | |
| Licenses and revenues receivable | |
| Other accounts receivable | |
| Supplies, etc., on hand | |
| Other current assets: | |
| | |
| | |
| | |
| Total Current Assets | |








MR. MACPHERSON'S SPECIFICATION.

CURRENT LIABILITIES.

| | |
|---|---|
| Audited vouchers, drafts or warrants unpaid | |
| Other accounts payable | |
| Temporary tax loans payable | |
| Accrued interest payable | |
| Advance to be refunded | |
| Other current liabilities | |
| Total Current Liabilities | |
| Revenue surplus (being net current assets available for general purposes) | |
| Total | |

The following extract from a paper read before a recent conference, relative to uniform municipal accounts, balance sheets, reports, and statistics, will be found instructive:

"Numerous balance sheets have lately appeared in municipal reports and have also been stated pro forma in schemes of municipal accounting. These lean to the merchant traders idea, and array among the assets, in addition to cash and elements realizable, such items as the cost or conceded values of parks, bridges, schools, police station houses, and other public

• SPECIMEN BALANCE SHEET OF ONE FUND _____ (PURPOSE) FUND _____ (DATE)

DESIGNED BY EDWIN ALEX BAKER CPA AUDITOR 1914 COUNTY BOARD. CHICAGO, ILL.

MOVEMENT OF THE FUND

| TREASURY STATEMENT | | COMPTROLLERS STATEMENT | | ‡ PROPERTY CLERKS STATEMENT | |
|---|---|---|---|---|---|
| DR. WITHDRAWALS FROM FUND AND BALANCE | CR. FUNDING OF FUND | DR. EXPENDITURES | CR. APPROPRIATIONS & TRANSFERS | DR. BALANCE AND NEW OUTLAYS AND DEPLETIONS | CR. FUNDED DEBT AND NEW BALANCE |
| PER WARRANTS COUNTERSIGNED TO DATE $30,000<br>BALANCE OF ESTIMATED RECEIPTS RECEIV'BLE OFFSET BY CONTR 25,000-<br>BALANCE:<br>CASH IN HANDS OF TREASURER $40,000<br>LESS HELD FOR WARRANTS OUTSTDG 5,000<br>AVAILABLE BALANCE 35,000<br>$110,000 | REC'D FROM BALANCE 1ST OF FISCAL YEAR $-<br>REC'D FROM 1902 TAX LEVY TO DATE 75,000-<br>ETC.<br>ETC.<br>BALANCE OF ESTIMATED RECEIPTS RECEIV'BLE 35,000-<br>TRANSFERS AND MISCELLANEOUS RECEIPTS NOT ESTIMATED IN BUDGET 10,000-<br>$110,000 | EXPENDED TO DATE AND ORDERED PAID $50,000<br>DITTO NOT YET ORDERED PAID (FLOATING DEBT) 15,000-<br>†TOTAL EXPENDITURES INCURRED, VIZ:<br>ORDINARY $60,000<br>PROPERTY 5,000<br>BAL UNEXPENDED APPROPRIATION 45,000<br>$110,000 | APPROPRIATIONS $100,000-<br>TRANSFERS AND MISCELLANEOUS RECEIPTS ON IN BUDGET ESTIMATE VIZ:<br>ORDINARY 9000-<br>FROM DEFLECTION 1,000- 10,000-<br>$110,000 | BAL. PROPERTY ACC'T 1ST OF FISCAL YEAR $200,000<br>NEW OUTLAYS (AS PER CONTROLLERS STATEMENT) 5,000-<br>TOTAL $205,000<br>LESS DEPLETING SALES (SEE ALSO COMPTROLLERS STATEMENT) 1,000<br>NET OF PROPERTY ACC'T THIS DATE $204,000<br>$204,000 | FUNDED DEBT RELATING TO THIS FUND ON 1ST OF FISCAL YEAR $100,000-<br>INCREASED TO DATE<br>TOTAL<br>LESS FUNDED OBLIGATIONS REDEEMED TO DATE $20,000-<br>AND LESS SINKING FUND ACCUMULATIONS TO MEET SAME $150,000 280,000<br>NET FUNDED DEBT $300,000<br>BALANCE:<br>‡EXCESS OF NET PROPERTY OVER NET FUNDED DEBT 104,000<br>$204,000 |

• Similar statements should follow, for each collective fund concluded by a summary set entitled "Recapitulation of all Funds;" and further supplemented by tabular detailed statements, one for each fund, showing departments listed down the page the subject matter above becoming the headings of these tabular statements with inserted figures working across the page.

† Total expenditures are for all obligations, contracts and claims, (including salaries to date) against this fund, which have not yet been ordered paid as well as those which have.

‡ This statement may not apply or relate to Funds which have no connection with fixed assets. A consolidated statement like this of all Funds and of all taxing bodies of a county would be interesting. Last assessed and equalized valuations all property assessable for this Fund was $150,000,000.

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buildings, waterworks and similar possessions broadly designated as 'unavailable' and 'fixed' assets; on the other hand, they array as liabilities the floating and funded debt.

"As an indication of the extent to which such an army of assets—which determine nothing as to the true condition of the municipal trust nor even remotely indicate the sum of its financial credit—has been seriously considered and stated as proper elements for inclusion on a municipal balance sheet, I would crave your indulgence while now submitting an exhibit of the 'Assets of a City' presented in a proposed 'Digest of the Public Affairs of a City,' promulgated by an association of public-spirited citizens whose zealous interest in the proper administration of that city's affairs has prompted them on various occasions to seriously offer and urge the recognition of what they considered were improvements in city book-keeping and the plan of presenting its annual reports.

"ASSETS OF A CITY."

| | |
|---|---|
| Cash in treasury | $ 13,566,738 |
| Uncollected taxes | 44,656,942 |
| Sinking fund | 110,636,438 |
| City Hall | 9,757,000 |
| Police Department | 4,780,599 |
| Fire Department | 7,813,325 |
| Schools | 46,421,756 |
| Libraries | 300,000 |
| Art galleries, museums, etc. | 19,810,000 |
| Parks | 296,871,791 |
| Jails | 5,958,000 |
| Workhouses, reformatories, etc | 6,989,500 |
| Hospitals | 10,625,500 |
| Asylums, almshouses, etc. | 6,095,250 |
| Docks and wharves | 67,336,000 |
| Ferries and bridges | 28,838,250 |
| Markets | 9,288,000 |
| Cemeterice | 56,000 |
| Bath houses, etc. | 280,000 |
| Water works | 115,526,748 |
| Other assets | 28,386,865 |
| Total | $833,984,712 |

"The foregoing table gives 'book values' of city properties so far as obtainable from the records; supplemented by approximate estimates. It seemingly excludes streets and highways from the list of public assets; nor do sewers or street lights appear in the schedule; unless covered by the item 'other assets.' If the cost of street openings and pavements were included, the total of city assets would be much greater. For example, one great street improvement alone cost some $40,000,000; and another street opening has likewise cost an enormous sum.

"Even cemeteries, streets and highways, the cost of street openings,

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pavements, and widening were all to be included and shown as assets of the municipality for the purpose apparently of opposing these by certain liabilities.

"As an appendix to a municipal balance sheet—displaying on the first form the elements of cash funds and realizable assets as opposed and in juxtaposition to the cash liabilities upon warrants registered, etc., and on the second form, a stated percentage of the total taxable value of realty, etc., as opposed to the total funded debt—a properly classified schedule setting forth the appraised values of city properties, such as public buildings, parks and squares, bridges, tunnels and other subways, waterworks, etc., etc., stating separately and in the aggregate the values of sites, buildings and equipment, would prove of much popular interest, but to include such as an integral part of a municipal balance sheet would be, in fact, to repeat values that were already merged into and had become a part of the values of the taxable real estate on which the faith and credit of the municipality was based and which measured its right to or precluded it from engaging in further public undertakings. Wherever it were possible to trace back through a city's accounts the total cost of public buildings, parks and other properties referred to herein, a third statement, in balance sheet form showing on the one side the conceded current valuations and on the other the total cost to the community, would be also of important and popular interest."

See also Municipal Accounts.

### (199) BANK BALANCE SHEET.

The appended illustration exhibits the usual form of statement of resources and liabilities issued by banks in the United States.

RESOURCES.

| | |
|---|---|
| Loans and discounts | |
| Overdrafts, secured and unsecured | |
| U. S. Bonds to secure circulation | |
| U. S. Bonds to secure U. S. Deposits | |
| U. S. Bonds on hand | |
| Premiums on U. S. Bonds | |
| Stocks, securities, etc. | |
| Banking house, furniture, and fixtures | |
| Other real estate owned | |
| Due from National Banks (not reserve agents) | |
| Due from State Banks and Bankers | |
| Due from approved reserve agents | |
| Internal-revenue stamps | |
| Checks and other cash items | |
| Exchanges for clearing house | |
| Notes of other National Banks | |
| Fractional paper currency, nickels and cents | |
| Lawful Money Reserve in Bank, viz.— | |
| Specie | |
| Legal-tender notes | |
| Redemption fund with U. S. Treasurer (5% of circulation) | |
| Due from U. S. Treasurer, other than 5% redemption fund | |
| Total | |





LIABILITIES.

| | |
|---|---|
| Capital stock paid in | |
| Surplus fund | |
| Undivided profits, less expense and taxes paid | |
| National Bank notes outstanding | |
| State Bank notes outstanding | |
| Due to other National Banks | |
| Due to State Banks and Bankers | |
| Due to Trust Companies and Savings Banks | |
| Due to approved reserve agents | |
| Dividends unpaid | |
| Individual deposits subject to check | |
| Demand certificates of deposit | |
| Time certificates of deposit | |
| Certified checks | |
| Cashier's checks outstanding | |
| United States deposits | |
| Deposits of U. S. disbursing officers | |
| Notes and bills rediscounted | |
| Bills payable, including certificates of deposit for money borrowed | |
| Liabilities other than those above stated | |
| Total | |

The form of this balance sheet has been severely criticised by many competent accountants, particularly in the arrangement of the liabilities, the assertion being made that unless properly segregated an intelligent conception of the status of the institution cannot be arrived at. The following comparative classification is recommended:

RESOURCES.

Specie.
Legal tender notes.
Checks and other cash items.
Fractional paper currency, etc.
Exchanges for clearing house.
Notes of other national banks.
Due from approved reserve agents.
Due from national banks (not reserve agents).
Due from state banks and bankers.
Loans (collateral) (a)—demand—time.
Discounts (b).
Bonds (face value).
Securities, etc., (face value).
U. S. bonds to secure circulation.
U. S. bonds to secure U. S. deposits.
Other bonds to secure U. S. deposits.
Redemption fund with U. S. Treasurer (5 per cent circulation).
Premiums on U. S. bonds.
Banking house, furniture and fixtures.

LIABILITIES.

Certified checks.
Demand certificates of deposit.
Individual deposits subject to check.
Cashier's checks outstanding.
Due to approved reserve agents.
Due to other national banks.
Due to state banks and bankers.
Due to trust companies and savings banks.
National bank notes outstanding.
U. S. deposits.
Bonds borrowed.
Capital stock paid in.
Surplus fund.
Undivided profits, less expenses and taxes paid.

(200) COMBINATION WORKING BALANCE SHEET AND COMPARATIVE STATEMENT.

Balance Sheet for Month of _____ 190 _____ Branch

| ACCOUNT | TRIAL | BALANCE | INVENTORY | LOSS | GAIN | ASSETS & | LIABILITIES |
|---|---|---|---|---|---|---|---|
| Capital A/c | | 65000 00 | | | | | 65000 00 |
| General Office | 5000 00 | | | | | 5000 00 | |
| Real Estate | 10000 00 | | | | | 10000 00 | |
| Buildings | 15000 00 | | depreciation | 350 00 | | 14650 00 | |
| Furniture & Fixtures | 1250 00 | | | 12 50 | | 1237 50 | |
| Horses & Wagons | 950 00 | | | 31 33 | | 918 67 | |
| Interest | 70 00 | | | 70 00 | | | |
| Maintenance of Real Estate | 130 75 | | | 130 75 | | | |
| " Buildings | 14 60 | | | 14 60 | | | |
| " Furniture Fixtures | 21 30 | | | 21 30 | | | |
| " Horses & Wagons | 18 50 | | | 18 50 | | | |
| General Expense | 210 00 | | | 210 00 | | | |
| Indirect Labor | 1236 25 | | | 1236 25 | | | |
| Direct Labor | 950 00 | | | 950 00 | | | |
| Trav. Expense | 97 00 | | | 97 00 | | | |
| Advertising | 70 00 | | | 70 00 | | | |
| Mdse | 1265 60 | | 5427 30 | | 4161 70 | 5427 30 | |
| Loss & Gain A/c | | | | 949 47 | | 949 47 | |
| Bills Receivable | 475 00 | | | | | 475 00 | |
| Payable | | 500 00 | | | | | 500 00 |
| Suspense A/c | 650 35 | | | | | 650 35 | |
| Cash A/c | 1276 80 | | | | | 1276 80 | |
| Accounts Payable | | 4204 50 | | | | | 4204 50 |
| Country A/cs Receivable | 18107 56 | | | | | 18107 56 | |
| City " " | 12910 79 | | | | | 12910 79 | |
| | 69704 50 | 69704 50 | | 4161 70 | 4161 70 | 70653 37 | 70653 37 |

COMPARATIVE STATEMENT OF MONTHLY SALES

| DEPARTMENT | THIS YEAR | LAST YEAR | INCREASE | DECREASE |
|---|---|---|---|---|
| Country Sales | 7596 48 | 6197 23 | 1199 25 | |
| City Wagon No. 1 | 1197 31 | 1104 07 | 93 24 | |
| " " No. 2 | 1342 87 | 1216 78 | 126 09 | |
| " " No. 3 | 1261 39 | 1141 28 | 120 11 | |
| " " No. 4 | | | | |
| Wholesale from Store | 6855 42 | 917 08 | 5938 34 | |
| Retail | 2597 46 | 2114 73 | 282 73 | |
| Total | | | | |
| Total | 20448 93 | 12691 17 | 7757 76 | |
| Branches | 2478 55 | 1706 05 | 772 50 | |
| Total | 22927 48 | 14397 22 | 8530 26 | |

Examined and Approved _____ Resident Mgr.





(201) BALANCE SHEET OF A BUILDING AND LOAN SOCIETY.

| RESOURCES. | | LIABILITIES. | | |
|---|---|---|---|---|
| First mortgages, real estate | $315,463 10 | Capital stock paid in instalment stock | $172,505 43 | |
| Advances on stock as collateral | 8,882 00 | In hands of local treasurers | 33,426 60 | $205,932 03 |
| Instalments in course of collection and in hands of local treasurer | 33,426 60 | Prepaid stock | | 111,157 00 |
| Interest and premium in course of collection and in hands of local treasurers | 5,361 50 | Full-paid stock | | 40,702 00 |
| Fines, due | 1,141 30 | Due to complete advances on real estate | | 6,650 00 |
| Semi-annual instalment on paid-up stock | 6,447 61 | Profits | | 44,946 96 |
| Discount advance payments on stock | 1,836 54 | | | $409,387 99 |
| Fixtures and furniture | 2,473 65 | | | |
| Real estate acquired by foreclosure | 7,069 41 | | | |
| Cash on hand and in bank | 27,286 28 | | | |
| | $409,387 99 | | | |

(202) BALANCE SHEET OF A STEAM RAILROAD.

| ASSETS. | | LIABILITIES. | |
|---|---|---|---|
| Cost road and equipment | $67,435,772 37 | Gross earnings | $10,676,112 43 |
| Stocks of other companies owned | 4,121,731 73 | Surplus carried down from previous year | 3,853,841 21 |
| Bonds of other companies owned | 4,749,871 48 | Capital stock paid in | 25,788,925 00 |
| Lands owned | 512,244 89 | Funded debt | 44,876,454 01 |
| Land grants of the state | 1,977,155 82 | Loans and bills payable | 2,180,069 79 |
| Foreign land grants (extra-state) | 94,257 29 | Matured interest coupons unpaid | 375,627 83 |
| Cash on hand | 29,735 47 | Audited vouchers and accounts | 894,876 40 |
| Bills receivable | 7,172 66 | Wages due and salary account unpaid | 782,557 60 |
| Due from solvent companies and individuals | 378,067 79 | Rentals due | 68,000 00 |
| Other cash assets | 1,000 00 | Net traffic balances due other companies | 64,666 36 |
| Sundries (rights way, franchises, terminals, etc.) | 367,985 96 | Dividends uncalled for | 171,840 33 |
| Operating expense (from operating expense books) | 7,528,805 55 | Construction contracts | 495,250 65 |
| Interest funded debt | 2,438,886 40 | Miscellaneous taxes, etc | 292,809 25 |
| Other interest account | 230,032 52 | Interest account | 542,968 20 |
| Rentals | 437,622 16 | Income from other sources, dividends on stocks owned | 134,056 11 |
| Taxes | 257,766 72 | Income from bond coupons | 1,750 00 |
| Due from agents | 19,685 21 | Miscellaneous income, less expense | 21,649 97 |
| Dividends on common stock | 515,623 50 | | $91,221,455 14 |
| Due from connecting lines | 10,408 12 | | |
| Materials and supplies on hand | 37,629 50 | | |
| Leased rolling stock | 70,000 00 | | |
| | $91,221,455 14 | | |

(203) FORM OF ANNUAL BALANCE SHEET FOR HOTEL.

| ASSETS. | | LIABILITIES. | |
|---|---|---|---|
| Real Estate | $20,000 00 | By proprietors' accounts forward to current year | $89,853 13 |
| Crandall Farm (buildings, stock and implements) | 6,025 00 | By loan account (Marine Bank) | 30,000 00 |
| Dairy Account (build- | | | |

| | | |
|---|---|---|
| ings, stock and implements) ..... | | 2,160 00 |
| Livery Account Inventory ..... | | 4,700 00 |
| Supplies (from steward's books): | | |
| Current year purchases .....$38,862 05 | | |
| Forward from last fiscal year ..... 7,294 16 | | |
| | 46,156 21 | |
| Charged off against losses, etc ..... 1,354 68 | | |
| | | 44,801 53 |
| Add supplies in transit at time of this report ..... | | 400 00 |
| Building and Improvement Account forward .....$69,164 55 | | |
| Current maintenance and addition costs shown by ledger... 7,888 40 | | |
| | 77,052 95 | |
| Deduct for depreciation 6% ..... 4,623 17 | | |
| | | 72,429 78 |
| Office Inventory ..... | | 860 85 |
| Furniture and Fixtures forward .....$10,826 10 | | |
| Added current fiscal period ..... 2,640 00 | | |
| Renewals current period 505 20 | | |
| | 14,061 30 | |
| Deduct 8%, wear and tear ..... 1,124 90 | | |
| | | 12,936 40 |
| Banks deposits as per passbooks written up | | 5,808 66 |
| Treasurer, amounts not deposited at time of report ..... | | 120 00 |
| Open accounts current .$19,628 75 | | |
| Add accrued interest.. 359 04 | | |
| Interest Acc't No. 2.. 266 42 | | |
| | | 20,254 21 |
| Insurance, buildings, livery, etc. .....$58,000 00 | | |
| Furniture and fixtures 6,500 00 | | |
| Farm and Dairy Acc't 3,500 00 | | |
| | | 68,000 00 |
| Inventories: | | |
| Advertising and Printing .....$ 300 00 | | |
| Fuel Account ..... 600 00 | | |
| Electric light contracts ..... 750 00 | | |
| | | 1,650 00 |
| | | $260,146 43 |

| | | |
|---|---|---|
| By sinking fund No. 1 (buildings) ..... | | 25,000 00 |
| By sinking fund No. 2 (loan account)... | | 8,000 00 |
| By accounts payable (forward) .....$ 3,902 22 | | |
| By accounts current including interest .. 23,204 62 | | |
| By accounts payable, loan interest ..... 666 67 | | |
| | | 27,773 51 |
| By contractor's credit balances ..... | | 9,625 25 |
| By paving assessments due with interest add | | 4,315 00 |
| Undivided Profits.....$40,827 10 | | |
| Profits current schedule attached..... 24,752 44 | | |
| | | 65,579 54 |
| | | $260,146 43 |

(204) BALANCE SHEET.

(AUDITING.) In the general program for the audit of a balance sheet





is neither more nor less than authorized by its charter. The minute book, subscription book and stock ledger should be examined to ascertain the actions of directors and stockholders; also see if all stock is paid up, whether there are any delinquents or forfeitures.

The accounts with sundry creditors should be checked in detail or compared with an adjustment account consisting of the totals of the debits and credits obtained from the various books of original entry. These accounts can also be verified by calling for statements from the different creditors. See that the reserves are not excessive, as a certain portion of the annual profits of the company are set aside for the purpose of creating a reserve fund to meet reverses or unforseen emergencies, etc. No well regulated company will declare a dividend equal to the net gain.

The amount advanced by the bank should be carefully looked into to see if there is any accrued interest on same and if so whether paid.

It should be the duty of the auditor to see that no inflated statements are made for the purpose of aiding dividends, and that dividends have not been paid out of capital. An auditor should vigorously oppose a dividend so declared, or that has not been legitimately earned. Should the directors persist in so doing, the auditor should so state in his report.

A proper amount should be written off for depreciation on buildings, fixtures and fittings, stocks of plates, stocks of engravings and cost of copyrights, the balance being carried as an asset to represent its true or present value. These accounts should all be examined carefully to ascertain whether or not the values have been inflated, comparing same with those of former years.

It is quite common in this business to find obsolete plates and engravings carried on the books at cost, when they should have been written off long ago.

Inasmuch as wiping out these values would probably obliterate the profit shown, it is evident that here is more than a suspicion of paying dividends out of capital. It is a somewhat difficult matter for an auditor to determine as to the present value of plates and engravings, but a fair idea may probably be obtained by ascertaining what demand exists for them.

Sundry debtors should be checked the same as sundry creditors, seeing that bad and doubtful debts are not included in good accounts receivable. These accounts should be verified by mailing an itemized statement to each customer with the request for their O. K. as to balance still owing. The cash balance should be vouched by checking all postings and additions thereof, also verify balance at the bank and on hand. Separate vouchers

should be required for petty disbursements—if not available the petty cash book should be signed by some responsible official of the company, vouching for the accuracy of that portion of the books.

Where the columnar cash books are used the auditor should satisfy himself that all amounts have been entered in the proper column.

## (205) BALANCE SYSTEM (IMPROVED) OF COST ACCOUNTING.

This system is based on an accurate determination of the cost of material, labor and direct expense, and an equitable distribution of indirect and general expense, including work in process.

The records of material and labor are maintained in the ordinary way by means of purchase and stores records and requisitions; shop orders, time cards and cost summaries.

Apportionment of indirect and general expense is, under ordinary circumstances, based on the cost of actual productive labor, same being compared each month with the volume of output, and the average thus obtained applied on the next month's product. By this plan the variations are exceedingly small, and these are taken care of by an expense adjustment account so that the factory records are always in balance with the general office books.

The following explanation, quoted from "The Iron Age," will explain and illustrate one method by which the balance system is applied.

The method covers the following particulars:

Accurate records of direct or productive labor.

Accurate cost of materials entering into the manufacture of the articles.

A percentage based on the direct, or productive, labor, to cover all non-productive manufacturing expenses, including depreciation of plant and appurtenances.

A percentage based on the total manufacturing expenses to cover commercial expenses.

In this article selling expenses are not included in the latter, being added as a separate item on the cost sheet. If found desirable they could, however, be included with the commercial expenses.

It will be seen that the distinct advantage in keeping the manufacturing cost separate from the commercial cost is to find the cost of goods at the factory door. Suppose, for instance, the factory is located in a New England town and the executive and selling headquarters are in New York. The advantage of, and necessity for, knowing the cost of the goods up to the time they leave the factory, is obvious; likewise the proper charge to





add to cover the executive and commercial expenses. There is, therefore, no reason why this same information is not just as important and essential, even though the headquarters are at the factory office; its usefulness remains in precisely the same degree.

The first thing to do, then, is to separate these various expenses shown on the department account report. By referring to Fig. A it will be seen that the items comprising all the non-productive manufacturing expenses, including depreciation, total $144,832.13. The amount paid for productive labor, $244,798.71, divided into this gives 59.16+ per cent to add for the non-productive manufacturing expenses, or, as some prefer to style it, the indirect manufacturing expenses. The total materials are shown at (B) and at (C) are shown materials, productive labor and non-productive manufacturing expenses combined, which total $764,238.48. At (D) is grouped the commercial expenses, which total $71,698.52. Dividing this latter amount by the total manufacturing expenses, $764,238.48, gives 9.38+ per cent, to be added for commercial expenses.

For the purpose of illustration, an assumed cost sheet for 10,000 metal disks is shown. The blanking, center punching and polishing operations (all productive labor) amount to $150. To this is added 59.16+ per cent, for non-productive manufacturing expenses, in one item, and the cost of material used, in another, giving a total of $338.75, which gives the total cost, to which must be added selling expenses and profit. The question may now arise, is this true and correct?

To verify its accuracy, what is called a "proof" is illustrated. From the total column of the department account report are taken the amounts for material, steel for manufacturing, tin and productive labor. Non-productive manufacturing expenses are then figured at 59.16376+ per cent (on productive labor). The total of these figures gives $764,238.47. To this total we add 9.381694+ per cent (figured out) for commercial expenses, giving in all $835,936.98, which represents the total manufacturing and commercial expenses combined. Now take the balance of merchandise account, which represents the difference in value of inventories December 31, 1905, and December 31, 1906; the amounts for loss and gain, and cash discounts, which are deductions of accounts receivable, and the selling expenses (which latter it will be remembered, are added separately on cost sheets), and the above amount representing the combined manufacturing and commercial expenses, the whole of which totals $1,018,507.82, being the total business charges for the year. From the department account report we now take the returns from the business, which consist of sales, foreign exchange and the balance of the reserve account, the latter being the difference between the amounts December 31, 1905, and

| A<br>Non Productive<br>Manufacturing Expenses | | |
|---|---|---|
| Storehouse (Balance) | 485 | 82 |
| Fuel - Coal | 9,102 | 02 |
| Fuel - Oil | 1,713 | 15 |
| Gas | 1,350 | 79 |
| Labor - Non Productive | 28,839 | 65 |
| Labor for Repairs etc. | 12,713 | 62 |
| Manufacturing Supplies | 28,883 | 20 |
| Packing & Shpg. " | 29,076 | 32 |
| Repairs & Imps. " | 8,589 | 90 |
| Water Power | 1,600 | 00 |
| | 122,354 | 47 |
| Depreciation | 22,477 | 66 |
| TOTAL Non Prod. Factory Expenses | 144,832 | 13 |
| B.<br>Materials | | |
| Material (Various) | 129,781 | 03 |
| Steel for Manuf'g | 230,051 | 27 |
| Tin | 14,775 | 34 |
| Total Materials | 374,607 | 64 |
| C | | |
| Materials | 374,607 | 64 |
| Productive Labor | 244,798 | 71 |
| Non Productive Factory Expenses } | 144,832 | 13 |
| Total Manufacturing Expense | 764,238 | 48 |
| D<br>Commercial Expenses | | |
| Interest & Discount | 12,332 | 27 |
| Expense | 7,483 | 50 |
| Legal Expense | 2,472 | 00 |
| Postage | 1,915 | 28 |
| Stationery | 1,255 | 20 |
| Telegrams | 139 | 24 |
| Insurance | 659 | 90 |
| Salaries | 41,860 | 67 |
| Taxes | 3,580 | 66 |
| Total Commercial Expenses Diagram 99 | 71,698 | 52 |

FIG. A.





| COST SHEET<br>10M Metal biscs. | | |
|---|---|---|
| Operation | | |
| Blanking | 100 | 00 |
| Center Punching | 25 | 00 |
| Polishing | 25 | 00 |
| Total Prod. Labor | 150 | 00 |
| Factory Expenses 59.16% | 88 | 75 |
| Material | 100 | 00 |
| Total Manufacturing Cost | 338 | 75 |
| Commercial Expenses 9.38% | 31 | 78 |
| | 370 | 53 |
| Selling Expenses | | |
| Profit | | |
| | | |
| | | |
| | | |
| Cost sheet of operations, Showing Method of | | |
| Adding Indirect Factory Expenses, Material, | | |
| Commercial Expenses, etc,. | | |
| | | |
| Diagram 98 | | |

FIG. B.

PROOF

| | | | | | |
|---|---|---|---|---|---|
| Material | 129,781 03 | Mdse (Bal.) | 18,423 28 | Diff. in Inv'ty. Dec 31. | |
| Steel for Mfg | 130,051 27 | Loss & Grain | 9,772 53 | Deduc from | |
| Tin | 14,775 34 | Cash Disct. | 33,729 95 | Accts Rec | |
| Productive Labor | 244,798 11 | Selling Ex | 120,644 78 | Added sep on Cost Sheet | |
| | | | 335936 98 | | |
| Non Prod. Mfg Expense | 12. | | 1,018,507 82 | Total Business Charges | |
| Total Mfg Expenses | 47 | | | | |
| Add 9.3815947% for | | | | | |
| Commercial Expenses | 51 | | | | |
| | 98 | | | | |
| RETURNS FROM BUSINESS VENTURE FOR YEAR | | | | | |
| Sales | 1,093,829 71 | | | Gross Profits | 100 826 96 |
| Foreign Exchange | 307 87 | | | Less Depreciation | 22 477 66 |
| Reserve (Balance) | 2,719 56 | | | Actual Net Profits | 78,349 30 |
| TOTAL RETURNS | 1,096,857 14 | | | | |
| Total Charges | 1,018,507 82 | | | | |
| NET PROFIT CALLED FOR | 78,349 32 | | | | |
| | | | | Diagram 100 | |

FIG. C.





December 31, 1906, the total of which amounts to $1,096,857.14. If from this amount the total business charges, $1,018,507.82 are deducted, a balance of $78,349.32 is left, which is the amount of net profit called for according to this computation.

Now from the department account report (Fig. 3) we find the gross profit is $100,826.96; from this deduct depreciation, $22,477.66 (which is included on cost sheets among the non-productive manufacturing expenses), and we have the actual net profit—$78,349.30—which, according to the income statement, is the net amount of profit carried to surplus account. By comparing this amount with the computation for proof it will be noticed the difference is two cents, which attests the accuracy of the method described.

## (206) BANK ACCOUNTING SYSTEM FOR A MEDIUM-SIZED BANK.

Within recent years book-keeping in country banks has been completely transformed. While the tendency has been to abridge and simplify methods, this has been accomplished without the sacrifice of system and adequate record.

In large banks the business is specialized and systematized to a remarkable degree of efficiency. The various departments of the bank are divided and subdivided, every branch so closely interwoven as to work in perfect harmony, like the movements of a great clock. With such organized administration, systematic book-keeping naturally develops itself.

But system should obtain in small banks as well as in large ones. Some bankers seem to think that because the volume of their business is small they are justified in following crude methods; but loose and indifferent methods of book-keeping will inevitably lead to serious complications.

The same system of book-keeping, however, is not adaptable to all banks alike. Methods which meet every requirement of a country bank might be wholly inadequate in a city bank. While country banks do not require such elaborate specializing, it is possible to maintain a splendid system of accounting in the smallest bank.

Before entering into a detailed description of country bank accounting, the reader should have a more definite conception of what constitutes a typical "country bank"—that is, some idea concerning the size of such an institution, the volume of its business, the number of officers and clerks actively employed, and the labor devolving upon each of them.

The term "country bank," as it is generally used, applies to all banks situated outside of the "Central Reserve" and "Reserve" cities. In con-

nection with these articles, however, the name will be used as descriptive of a bank, of which the following description may serve as an example:

The name of the bank is the First National Bank. It has a capital, say, of $50,000, surplus of $25,000, deposits subject to check, $200,000; time certificates of deposit $50,000, and a working force consisting of the following officers and clerks: Cashier, assistant cashier, individual book-keeper, assistant book-keeper, or messenger.

THE CASHIER. There is a prevailing opinion that the cashier of a bank has exclusive control of its cash, personally attending to the receiving and paying out of money. The title itself conveys a wrong impression, for while the cashier may have the general supervision of the cash, the detail work connected with it does not necessarily engage his personal attention. In fact, it is a duty generally delegated to some other employe of the bank. The title "cashier" more properly gives that officer the rank of "general manager," and he is frequently the executive head of the institution. The president and vice-president are usually inactive officers, the duty of the president being chiefly to preside over directors' meetings.

The duties of a country bank cashier are numerous and varied. Besides having general supervision of the bank, he must meet personally many of his clients during business hours, converse with them pleasantly, and by no word or act intimate that he is impatient to terminate the conversation on account of "pressing business." He considers all applications for loans, and is usually required to pass upon them at once, using his own judgment independently of the directors. He keeps the stock ledger and attends to all transfers of stock; also the discount register, personally looking after the notes falling due each day. He opens the mail and does all of the special correspondence, replying to many inquiries about the financial standing of the people in the community; purchases the stationery and bank supplies; signs drafts and cashier's checks, certified checks, and makes regular quarterly statements to the comptroller of the currency. He advises with clients in regard to purchasing bonds and making other investments, and should be competent also to rightly judge and recommend securities available for their own investment. He calls the meetings of the directors, at which he brings up the business to be transacted, makes reports, acts as secretary, and keeps the minutes of the meetings. He goes through the individual ledger periodically in order to keep informed as to the state of customers' accounts, keeps in constant touch with the daily statement book and general ledger, and well informed especially concerning the profit and loss account and expense account. When not otherwise employed he may take in deposits and pay out money.





There are many other matters of more or less importance which from time to time may engage the attention of the cashier. The extent and diversity of his employment is, indeed, almost unlimited.

The next officer in rank to the cashier is the assistant cashier.

THE ASSISTANT CASHIER. The duties of the assistant cashier are less responsible than those of the cashier. In fact, his work is chiefly of a clerical nature, but, of course, in the absence of the cashier, he assumes many of the more important duties. He keeps the general ledger, does most of the counter work,—that is, receives and pays out money, counting and balancing the cash at the end of each day's business,—and has charge of the collections. He may also write the cash and remittance letters, if such work is not entrusted to the assistant book-keeper.

THE INDIVIDUAL BOOK-KEEPER. The nature of the work devolving upon the individual book-keeper is more or less mechanical and makes him somewhat of a machine. His sole duty consists in keeping the individual ledger and balancing pass books, and in this he is assisted to some extent by the assistant book-keeper.

THE ASSISTANT BOOK-KEEPER. The assistant book-keeper's principal duty is to assist the individual book-keeper. He also collects drafts and does errands. For the individual book-keeper he assorts and cancels checks and deposit slips, lists on the adding machine the canceled vouchers when pass books are left to be balanced, calls back ledgers, and assists in taking off trial balances.

Having briefly sketched the duties of each member of the working staff of a country bank, let us see what books and methods of accounting the business requires. First, there is the teller's cash book, which exhibits the state of the cash in detail,—that is, it shows the amount of gold on hand, the amount of currency, classifying it as to "bank notes," legal tenders," and "silver certificates," and the amount of silver in "halves," "quarters" and "dimes," also "nickels" and "pennies."

The cash book is the original book of entry for recording every transaction made during the day, and provides a means of "proving" the general ledger.

It exhibits on the debit side the cash balance on hand in the morning. Money received and items credited elsewhere are entered on the debit side; payments and items debited elsewhere are entered on the credit side. The difference between the debit and credit pages will show the cash balance at the close of business.

The individual ledger is the ledger in which the accounts with the depositors are kept. It is a small loose leaf book, with a capacity of from

ten to twelve hundred accounts. This ledger is kept by the individual book-keeper, deposits being credited and checks charged to the separate accounts at certain intervals of the day. At every posting the balance is forwarded to the "balance" column.

The journal and proof ledger is kept for the double purpose of proving the individual ledger and to furnish the "debit" and "credit" totals for the general ledger account of "deposits."

The general ledger is the book in which all the general accounts are kept—that is, all those accounts making up the "Resources" and "Liabilities" of the bank. The form and scheme of this book combines the general ledger, journal, and daily statement.

The discount register and tickler. These are two separate books. In the first, notes discounted by the bank are entered, showing the total loans for each day with a full description of each. On the tickler the notes are entered under the date of their maturity, showing all notes falling on every business day.

The collection register. All items received for collection and not credited as cash are registered in this book under the date of their receipt. Unless the bank handles a great many collections it is unnecessary to keep a separate collection tickler, as such items may be entered on the discount tickler and designated as "Collections." Notes, collections, and all other items payable out of town, whether they belong to the bank or not, are also entered on the collection register when forwarded for collection.

Certificate of deposit registers. Many banks issue both demand and time certificates of deposit, and as they are kept separate it is necessary to employ two registers, though both are alike. These books afford a complete record of certificates of deposit issued and paid.

The certified check, cashier's check, and dividend check registers. These registers are all similar in form, the first being a record of checks certified, the second of cashier's checks issued, and the third of the dividend checks issued to stockholders upon the declaration of dividends.

The liability ledger is designed to keep a line on the total credit extended to borrowers. It contains an account with every borrower of the bank, showing the amount of his liability both as principal debtor and as indorser.

The stock ledger contains an account with every stockholder of the bank, showing the number of shares held by each of them and a record of all transfers and new certificates issued.

THE CASH. In a country bank the paying out and receiving of money is a duty not always performed by a particular clerk, but any of the officers or employes may attend, or assist, at the "counter."





**Teller's Cash Book**

DATE Dec. 4, 1902 DATE

| Cash Items | Amount | | | Amount | Cash Items |
|---|---|---|---|---|---|
| 209 | 2000 | | Gold in Vault | | |
| 97 51 | 50 | | Gold in Tray | | |
| 128 65 | 3000 | | Gold Certificates | | |
| | 6530 | | Silver Certificates | | |
| 435 16 | 100 | | Silver $1 in Vault | | |
| 225 18 | 20 | | Silver $1 in Tray | | |
| 74 22 | 400 | | Silver 50¢ in Vault | | |
| 734 56 | 50 | | Silver 50¢ in Tray | | |
| | 400 | | Silver 25¢ in Vault | | |
| | 50 | | Silver 25¢ in Tray | | |
| | 75 | | Silver 10¢ in Vault | | |
| | 20 | | Silver 10¢ in Tray | | |
| | 12695 | | Total Specie | | |
| | 6000 | | Legal Tender | | |
| | 18695 | | Total Reserve | | |
| | 500 | | National Bank Notes | | |
| | 50 | | Nickels in Vault | | |
| | 10 | | Nickels in Tray | | |
| | 25 | | Pennies in Vault | | |
| | 2 | | Pennies in Tray | | |
| | 35 | | Mutilated Currency | | |
| | 19317 | | Net Cash | | |
| | 734 | 56 | Cash Items | | |
| | 20081 | 56 | Total Cash | | |

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**Journal and Proof Ledger**

| Name | No | Monday, Dec 4, 1902 | Tuesday Dec 5, 1902 | Wednesday, ____ |
|---|---|---|---|---|
| Adams J.T. | 1 | 165 90 | 980 45 | 1820 55 |
| | | | 1000 | |
| Aikin C.M. | 2 | 89 | 560 54 | 471 54 |
| Baldwin F.R. | 3 | | 1200 | 1700 |
| | | | 560 | |

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In the larger banks more precaution is taken, one or more clerks, according to the size of the bank, being held responsible for the cash, while the rest of the force have no access to it at all. In such banks this employe is known as the teller. In some banks the same person may receive and pay out both, others may have a paying and receiving teller, or even several paying tellers and several receiving tellers.

In every bank the handling of the cash should, so far as possible, be confined to a single person. Where the employes of the bank generally have free access to it the responsibility for "differences" cannot be definitely fixed, and consequently there will be less care and caution exercised. Mistakes in other departments of the bank may be easily rectified, but when made in connection with the cash it is often impossible to trace them.

The employe to whom the cash is entrusted should be a man of good character, courteous, and obliging at all times. A grumpy, ill-tempered person, whether he be the cashier or president, has no business whatever at the bank counter. Coming in contact as he does almost every day with the patrons of the bank his disposition could not help but create an unfavorable impression among them. The position is a rather trying one. There are all kinds and conditions of people to deal with, and to please all the teller must use tact and discretion. He should be patient under the most aggravating circumstances, never combative, and always pleasant.

He should be a good judge of human nature, a close observer, and possess a good memory for names and faces, so as not to have to require identification more than once. Most people become very much annoyed at being asked for identification at their home bank, even if they have never before been in the institution. By not being too exacting, and by using a little tact with such people, a bank may very often secure a valuable account.

There are so many crooks abroad, however, that a bank has to be on its guard continually. It is even unsafe to accept deposits from strangers unless they secure identification and come well recommended as to their character and financial standing. Country banks are not usually so strict in this regard, but it is their duty to know every man with whom they have business dealings.

Many people have a queer conception of what identification is. Some show their bank pass books; others produce letters addressed to them. These things are useless as a means of identification because in the case of a lost or stolen check, the pass book and letters may have been stolen or found with the check.

The teller should be quite as familiar with the accounts on the indi-





**CASH BOOK**

Dr. DATE December 4, 1902 Dr.

| Deposits | New York | Pittsburgh | Union Town | Fairmont | Cert. of Dep. | Loans | Profits | Total |
|---|---|---|---|---|---|---|---|---|
| 15965 40 | Rem. 279 30 | Rem. 2274 82 | Rem. 299 80 | Rem. 190 50 | Time 1000 | 1956 | Balance | 19752 16 |
| | | | | | 500 | 3550 | | 15965 40 |
| | | | | | | 5506 | | 279 30 |
| | | | | | 1500 | | Exchange | 101 57 |
| | Drafts | Drafts | | | | | N.Y. 15 | 2274 82 |
| | 35 85 | 167 06 | | | | | 20 | 1031 29 |
| | 65 52 | 581 49 | | | Demand | | | 299 80 |
| | 101 57 | 129 10 | | | 250 | | Fifth 20 | 190 50 |
| | | 153 69 | | | | | 50 | 1500 |
| | | 1031 29 | | | Cash Check | | | 250 |
| | | | | | 75 | | | 18 60 |
| | | | | | 3 60 | | Discount | 130 |
| | | | | | 78 60 | | 111 97 | 5506 |
| | | | | | | | 3 75 | 116 72 |
| | | | | | Cert. Check | | 116 72 | |
| | | | | | 130 | | | |
| | | | | | | | | 47471 21 |

**CASH BOOK**

Cr. DATE December 4, 1902 Cr.

| Checks | New York | Pittsburgh | Union Town | Fairmont | Cert. of Dep. | Loans | Expense | Total |
|---|---|---|---|---|---|---|---|---|
| 13069 56 | | | | | | | | 13069 56 |
| | Rem. 297 73 | Rem. 4387 85 | Rem. 144 89 | Rem 505 50 | Time 450 | 250 | 3 60 | 297 73 |
| | | | | | | 7465 | 75 | 4387 85 |
| | | | | | | 7715 | 78 60 | 58 97 |
| | | | | | | | | 144 89 |
| | | | | | Demand | | | 505 50 |
| | | Coll. | | | 578 05 | | | 450 |
| | | 58 97 | | | | | | 578 05 |
| | | | | | Interest | | | 13 50 |
| | | | | | 13 50 | | | 7715 |
| | | | | | | | | 78 60 |
| | | | | | | | | 120 |
| | | | | | Div. Checks | | | |
| | | | | | 120 | | Balance | 20051 56 |
| | | | | | | | | 47471 21 |

DIAGRAM 2.

vidual ledger as the individual book-keeper himself, in order to avoid the necessity of looking up an account when a check is presented, as this may excite the suspicions of the person presenting the check and thus reflect upon the credit of the bank's customer.

In well-regulated banks the "cash-counter" is always neat and

orderly. The money is kept conveniently "stacked" and "sorted" to facilitate counting and to avoid confusion. Torn and soiled bills are put away temporarily in a separate till known as the "rag bag," and from time to time may be shipped to Washington for redemption, or to the treasurer of the United States for credit to the account of the five per cent redemption fund.

Most of a bank's "cash reserve" is always kept locked up in its vaults, only a sufficient amount being retained on the counter and in the cash drawers to run the bank during the day.

The loose currency of the counter is usually stacked in $100 piles, except ones and twos, which are stacked in $50 piles. The cash drawer is divided into small compartments, or tills, into which the currency is distributed according to the denominations of the bills, as it is received during the day.

For the convenience of making change and for the purpose of keeping the silver in such shape as to make it easy to count, several mechanical devices are now in use.

Currency is usually put up in small packages of convenient amounts, according to denominations, and wrapped with paper straps, heavily gummed, and labeled with the amount and denomination of the bills. Curency is wrapped as follows:

$100 bills in $5,000 or $10,000 packages.
$50 bills in $5,000 packages.
$20 bills in $500 packages.
$10 bills in $500 packages.
$5 bills in $250 and $500 packages.
$1 and $2 bills in $50 packages.

Silver is rolled in paper wrappers made for that purpose. These wrappers are made in such a way as to hold the coins securely without gumming. The amount and denomination is printed on each wrapper. Silver is usually put up as follows:

Dollars in $20 rolls.
Half-dollars in $10 or $20 rolls.
Quarters in $5 and $10 rolls.
Dimes in $3 and $5 rolls.
Nickels in $1 and $2 rolls.
Pennies in 25c and 50c rolls.

In the vault the packages of currency are stacked away, while the silver, properly wrapped, is put up in canvas bags with the amount and kind of coin printed on both sides.

In connection with the cash, for the purpose of ascertaining at any





**Individual Ledger**

Name J. T. Adams — First National Bank — Account No. 798 — Sheet No. 4

| Date | Checks in Detail | Total Checks | Deposits | Balance | Date | Checks in Detail | Total Checks | Deposits | Balance |
|---|---|---|---|---|---|---|---|---|---|
| Dec 1 | | | Fwd | 496 45 | | | | | |
| 4 | 10 50 c.c. 25 40 c.c. 150 | 165 90 | 490 | 986 45 | | | | | |
| 4 | | | 1000 | 1820 55 | | | | | |

Diagram 3.

**Certificate of Deposit Register**

Dr. — Cr.

| Date 1902 | No. | Amount | Total | Int. | Date 1902 | To Whom Issued | No. | Amount | Total | When Paid |
|---|---|---|---|---|---|---|---|---|---|---|
| Dec. 4 | 3250 | 450 | 450 | 13 50 | Dec 4 | J H Carter | 5000 | 1000 | | |
| | | | | | 4 | S R Miller | 01 | | | |
| | | | | | | | 02 | 500 | 1500 | |
| | | | | | | | 03 | | | |
| | | | | | | | 04 | | | |
| | | | | | | | 05 | | | |
| | | | | | | | 06 | | | |
| | | | | | | | 07 | | | |
| | | | | | | | 08 | | | |
| | | | | | | | 09 | | | |
| | | | | | | | 10 to 20 | | | |

Diagram 6.

CERTIFICATE OF DEPOSIT

The Commercial National Bank No. 682
Hopedale, Ohio. _____ $ _____

_____ has deposited in this bank _____ Dollars

payable to the order of _____ on return of this Certificate properly endorsed six months after date with interest at the rate of 3% per annum.

NO INTEREST AFTER SIX MONTHS

_____ Cashier

Diagram 5.

moment the exact amount of every kind of money "in stock," the bank keeps a little book called the "teller's cash book." While it is compulsory for a bank to keep on hand a certain amount of cash, it is evident that this cash should not be all one kind of money. The requirements of the business, of course, make it necessary to keep a supply of fractional silver and

bills of different denomination. The teller's cash book is especially adapted for use by the national banks, as the national banking laws require a this book. Each page furnishes the record for two days' business, the detailed statement of the cash corresponding with the record contained in items being printed down the center of the page, while on the left are two columns for the figures of one day, and on the right two columns for the figures of the day following.

Diagram 1 will fully explain the use of this book.

THE CASH BOOK. When a customer of a bank hands in his deposit at the window, the clerk receiving it first counts the cash and verifies it with the amount on the "deposit ticket." Each listed check or item is carefully scrutinized, notice being taken of the date, the amount, the signature, and the indorsements. More particular attention is given to the indorsement of the depositor himself, as it is upon his signature that the bank relies for its protection. These things are all taken in at a glance by the experienced clerk accustomed to the handling of hundreds of checks.

As the items are being compared with the amounts on the deposit tickets, they are plainly checked with blue pencil in order that any missing items might not be overlooked. The footing is also verified, and if correct the date and amount of the deposit are entered on the pass book.

Depositors do not always make out their own deposit ticket, although it is important that they should do so. In the large city banks the tellers refuse to accept a deposit unaccompanied by a deposit ticket. Most country banks are not so particular, while some are wholly indifferent. Every bank should endeavor to educate its customers to this way of making deposits. Such precaution is necessary for the protection of the customer as well as the bank. The customer who hastily thrusts his deposit in the "window" without a ticket runs the risk of failing to get proper credit for it, as the teller in his rush to get rid of a line of waiting customers may forget to make it out for him. In such a case the depositor would have to prove to the bank's entire satisfaction that the deposit was actually received by them before they would be willing to credit it to his account.

Let us see what "items" may be received over a bank counter besides actual cash:

Checks on the bank itself.
Checks on other banks in the same town.
Checks on banks outside of town.
Certificates of deposit issued by the bank itself.
Certificates of deposit issued by other banks.
Bank drafts.





Drafts drawn by one person or firm upon another. These drafts, however, are not usually credited as cash unless accepted and made payable at some bank.

Notes given by another person or firm to the depositor, and which the bank has accepted for discount.

Depositors' own individual notes.

Coupons.

Of the disposition of these various items we will learn more later. The teller, however, temporarily disposes of each deposit as it is received. The cash is first distributed in the separate tills. The deposit tickets and the checks drawn upon the bank itself are placed on separate spindles, while the foreign checks (those that are drawn on banks out of town) are placed in a separate pigeon-hole, or perhaps there is a pigeon-hole for each bank with which the bank corresponds.

The checks drawn on the bank itself are never canceled until after they have been posted to the individual ledger, as a check which is not good and has been overlooked elsewhere may be discovered in time to prevent payment when it is posted to the ledger.

The cash book is the book of original entry in the country bank, a journal in fact, from which, however, none of the entries are posted to other books. There are ten columns on each page—or more if the requirements of the business justify it—and a full double page is used for each day's business. Diagram 2 contains the entries for the day's business, as of December 4, 1902.

THE DEBIT SIDE. Deposits. The amount in this column, $15,965.40, represents the total of all the deposit tickets, they having been sorted in alphabetical order and listed on the adding machine.

New York. A "cash letter" containing checks on the bank amounting to $279.30 was received from the First National Bank of New York. The checks contained in this letter were listed on the machine, and the total corresponding to their letter was posted from the "slip," and are designated "Rem." (Remittance.) There were also drafts issued on the First National Bank of New York, perhaps to cover collections sent by other banks, as follows: $35.85 and $65.52. These items are entered under "Drafts."

Pittsburg. The "cash letter" received from the First National Bank of Pittsburg contained items aggregating $2,274.82, and the drafts drawn on this bank were $167.06, $581.49, $129.10, $153.64.

Uniontown. The bank has "reciprocal accounts" with the First National Bank of Uniontown and the First National Bank of Fairmont. The figures in this column represent the checks received from the First National of Uniontown.

Fairmont. Items received from the First National Bank of Fairmont amount to $190.50.

Certificates of Deposit. Two time certificates of deposit were issued by the bank—one for $1,000 and one for $500. A demand certificate for $250 was also issued. These items were of course entered on the cash book separately at the time of their issue. Two cashier's checks and a check for $130 were certified. There being no special column for these items, they were properly designated and placed in this column.

Loans. A loan for $1,956 and one for $3,550 having been paid, were entered in this column.

Profits. The various sources of the bank's profits are herein designated. Thirty-five cents and 70 cents were received as "exchange" on drafts drawn on New York and Pittsburg respectively. Also $115.72 interest on loans made.

Total. The balance brought over from the previous day's business is $19,752.16. Under these figures are gathered the total of each column or group of figures, the grand total being $47,471.21.

THE CREDIT SIDE. Checks. All checks on the bank itself received from various channels having been "sorted" in alphabetical order and listed on the "machine," the total of which amounts to $13,069.56, is entered in this column. If the bank is unfortunate enough not to own an adding machine, items must of course be listed on the cash book in detail with a pen.

New York. Items received from New York having been charged to cash, those sent to them for credit must then be credited to cash. These items aggregated $297.73.

Pittsburg. Most of the "foreign" checks received through various channels are sent to the bank's "reserve agent" at Pittsburg, as the banks in that city are not restricted by clearing house rules governing the collection of checks, and therefore accept most items at par. The total of the items sent in their letter of December 4th was $4,387.85. The bank also received advice that a "collection" of $58.97 sent to Pittsburg some time before had been paid. This item was therefore charged to Pittsburg on the general ledger and credited to cash on the cash book.

Uniontown. The figures in this column and in the column headed "Fairmont" represent the totals of items sent to these banks for credit. As Uniontown and Fairmont are neighboring towns and the bank has only reciprocal accounts with the First National Bank at each place, only checks drawn on them, or perhaps a few other towns in the immediate vicinity, are sent direct to them.

Certificates of Deposit. The items in this column represent certifi-





cates of deposit that were paid, interest that was paid on the certificates, and a dividend check for $120.

Loans. Two loans amounting to $7,715 were made, as is shown by the figures in this column.

Expenses. The expense items appearing in this column are $3.60 and $75. Expenses are "itemized" in the "expense book," and posted from there to the general ledger.

Total. The total "footings" of each column are carried to the "total" column and added in order to get the total "credits." The difference between the debit and credit sides of the cash book shows the amount of cash balance on hand, providing, of course, all entries have been correctly made.

It will be seen that the balance as shown by the cash book corresponds to the teller's count as shown by the teller's cash book.

The importance of the cash book lies in the fact that it furnishes a means of "proving" or "checking" the totals of various groups of items. Some banks do not keep a cash book, either from a lack of knowledge of the most improved methods of book-keeping or their unwillingness to adopt a system which requires two entries when the desired result may be obtained by making only one. The time consumed in making the double entries, however, is more than offset by the time and labor saved in "striking a balance."

Without the aid of a cash book, if at the end of the day's business a discrepancy appears in the books, it is necessary in order to locate the error to check every item of each account separately until it is found. With the cash book, however, totals of accounts only are checked.

For instance, suppose at the end of the day's business the general book-keeper is unable to "prove" his ledger. It is evident that an error exists in some account on one of the various books. It may be on the cash book, the discount register, the draft register, the individual journal and proof ledger, or on the general books themselves. The point is to determine in what book or account the error occurs, so as to avoid the waste of time and patience in "checking" items in those accounts that are correct.

This may be done by checking the totals on the cash book with the corresponding debits and credits of the general ledger. As all the accounts on the general ledger are spread out before you on an open page, the checking may be very speedily accomplished.

Say the error existed in the journal and proof ledger, a deposit ticket having been entered incorrectly. As the total deposits and total checks are posted to the general ledger from this book, when the cash book is checked with the general ledger the two totals will disagree, thus showing

at once in what section the discrepancy exists. The error itself is then located by checking the deposits separately on the "slip" with those on the journal and balance ledger.

THE INDIVIDUAL BOOKS. All the clerical work of a bank is more or less wearisome, but the monotonous drudgery of the individual books is a severe strain upon the nerves and patience of the individual book-keeper. His sphere of employment is narrow and his duties exacting, affording little opportunity for advancement. Every day he has the same thing to do over and over again. There is no variety to lend interest to his work—no new ideas to work out, or new problems to solve; all is purely mechanical.

At the same time there is a great deal of responsibility resting upon the individual book-keeper. Although he is not expected to be quite infallible, a mistake on his part is almost an unpardonable sin; for when such mistakes come to the knowledge of the customer they tend to arouse his suspicions, and frequently result in the loss of his business.

The individual book-keeper must have a good memory. It is necessary for him to keep in his head the approximate balances of all the accounts, as he is frequently called upon to answer whether or not a check is good when it would be inexpedient to refer to the ledger. He must also keep in mind the exact location in the ledger of each account, so that they may be turned to instantly without having to first refer to the index.

The first book with which the individual book-keeper has to do is the "journal and proof ledger."

THE "JOURNAL AND PROOF LEDGER." The "proof ledger" is similar in all its main features to what is known as the "Boston ledger." The primary object of the proof ledger is to provide a means of "checking" the individual ledger. It is also a journal, upon which are entered the deposit slips and checks, thereby furnishing the individual debit and credit footings for the general ledger.

The deposit tickets and checks have already been "sorted" in alphabetical order, listed on the "machine," and their totals entered on the cash book. They are now taken by the individual book-keeper, or his assistant if he has one, and posted to the proof ledger.

This ledger contains both long and short leaves, there being at least 12 short leaves to every one long leaf. The margin of each long leaf extending beyond the edge of the short leaves is sufficiently wide to admit of the writing of the customers' names, and when the short leaves are turned back to the left and lie flat on the long leaf the names are left uncovered.

The names are written in vertical order, one under the other, to the





extreme left of the page. Across the double page are six spaces, each space containing a debit and credit column. This ruling is sufficient to accommodate the business of the six days of the week without turning the leaf.

The short leaves of the ledger eliminate the necessity of rewriting the depositors' names when carrying the balances to the next page, as the names on the long leaf are always in view.

At the close of business on the last day of the week, when balances must be forwarded to the next page, instead of first writing the balances on that page and then transferring them to the next page one at a time, turning the leaf back and forth at every transfer, the outer edge of the next leaf is simply folded back to the left so that the first column at the extreme left of the page is brought contiguous to the last column of the preceding page.

The leaf is creased in this position, thus bringing the debit and credit columns of the last day of the week side by side with the debit and credit columns of the first day of the week on the next page, permitting all the balances to be forwarded at one turning of the page. When all the balances have been forwarded, by turning back the edge of the leaf to its original position, the balances are brought into proper position for the continuation of the entries for the succeeding week.

Diagram 3 shows a page of the "journal and proof ledger."

The entries in this illustration are sufficient to show how the accounts are entered and kept. In the first column the names are entered in alphabetical order. In the debit column of the space for Monday's business the figures in italics represent the total checks entered in red ink, while the larger figures in the credit column are deposits. The smaller figures in the upper right-hand corner above the lines upon which are written the accounts, indicate the balances as they are entered in lead pencil.

The proof ledger is not only designed to furnish a "check" on the individual ledger, but it also furnishes the total individual debits and credits for the general ledger.

The parallel lines usually alternate red and blue, as it aids the eye in following the line from the customer's name to the remotest column in which entries are to be made.

The debits and credits are posted in different colored ink—the checks in red and the deposits in purple—in order to lessen the danger of posting debits as credits and credits as debits.

When the checks paid against any account in a single day are too numerous to permit of their being entered in detail in the debit column, they may be listed on the back of one of the canceled vouchers and their total only entered.

The "active" and "inactive" accounts may be kept separate on the proof ledger, the active accounts being put in the front of the ledger, while a few leaves are reserved in the back for inactives. The classification, however, should be very carefully made, taking particular pains that those that are the least active are not put with the inactive.

Posting to the proof ledger is done very rapidly, as it consists merely in entering the deposits and checks in their proper columns opposite the depositor's name. The balances of all the accounts are not forwarded every day, but only those that change. At the end of each week, however, when the end of the page is reached, they all must be carried over to the next page to begin the business of the next week.

It is not necessary to "call back" the proof ledger with the individual ledger oftener than once every two weeks or month, as an error in either ledger may be easily and quickly located by comparing the accounts of the two ledgers.

When all the checks and deposits have been posted to the proof ledger and the total footings ascertained, they are compared with the total checks and total deposits on the cash book, and if the corresponding columns agree, the totals are then posted to the general ledger. The debit and credit columns of the proof ledger may be added and the footings forwarded as the deposit slips and checks are posted on each page, in order to save the time of going through the ledger again merely to get the total footings.

In the back of the book the inactive accounts are kept somewhat differently. A page is written only about two-thirds full of names, leaving a blank space between the last name and the bottom of the page. The total of all the balances on each page of inactive accounts is constantly carried without forwarding the balances separately and footing them up every time there is a change in an inactive account.

If a check is charged or a deposit credited to an account, the items are entered in their proper columns opposite the name, and the balance forwarded in lead pencil as usual. But from the total of the page at the bottom, the items are immediately deducted, or added, as the case may require. Thus is avoided the necessity of footing singly all the inactive balances when taking a trial balance.

As all the checks and deposit tickets have now been entered in the proof ledger and the debit and credit footings obtained for the general ledger, they are next posted to the final book of entry—the individual ledger.

THE INDIVIDUAL LEDGER. As the loose leaf system is employed in keeping the individual accounts, two separate binders are necessary—the





"current binder" and the "transfer binder." In the current binder are kept only the open accounts, the closed accounts and the filled leaves of the open accounts being transferred to the transfer binder.

Every book-keeper is of course familiar with the loose leaf system. The mechanism is very simple. The book is not permanently bound, but the leaves are simply placed loose in a binder, and by turning a little key, or knob, the leaves become "clamped," or locked. They are firmly held in place and cannot be extracted unless the ledger is unlocked.

The index leaves are distributed throughout the ledger, there being attached to each a little leather tab indicating the letter of the alphabet, and arranged in such a manner as to leave all the letters visible when the book is closed.

In this ledger a full leaf is given to each account, whether active or inactive, otherwise the advantageous arrangement of the accounts and the index feature would be spoiled.

At the top of the page the name and address of the depositor is written. In the right-hand corner of the page is entered the number of the account and the "sheet number," the latter designating the number of sheets the account has filled.

The pages are usually double ruled—that is, they are divided in the center by a heavy line extending perpendicularly from top to bottom. Each half-page contains five columns, as follows: "date," "checks in detail," "deposits," and "balance." There is no debit balance column, as the occasional over-drafts are entered in red ink in the credit balance column.

Diagram 4 is a specimen page of the individual ledger, showing how deposits and checks are entered and how the balances are constantly carried.

In this diagram are shown the following facts: That J. T. Adams has an account with the bank, and that his balance of $496.45 has been forwarded from sheet No. 3, which was filled and transferred to the transfer ledger; that he was the 798th person to open an account with the bank; and that the number of the sheet is "four." On December 4th Mr. Adams made a deposit of $490, which was added to his former balance and the new balance entered immediately at the time of posting. On December 4th three checks, aggregating $165.90, were charged against his account, the checks first being entered separately in the "checks in detail" column, and the total carried to the "total checks" column. The item of $130, marked "C. C.," is a charge made for a check which was certified for that amount upon that date. If the checks charged on December 4th had been in excess of the previous balance, an "overdraft" would have been the

result, thereby creating a "debit balance," which would have been entered in red ink in the credit column.

The individual loose leaf ledger is perpetual—one feature alone which makes it a God-send to the "slave" of the counting house. The laborious task of transferring the hundreds of names and balances contained in one large ledger to another was for years the bane of the book-keeper's existence. First, there was the proper spacing of the new ledger—to tell just how many pages should be allotted to each account and how much space to be reserved between accounts for the insertion of new ones which might be opened from time to time. But in spite of the most painstaking calculations, the book-keeper's judgment invariably proved wrong in case of some of the accounts, they becoming more active than he had anticipated, and perhaps more new accounts had been opened than allowance was made for. Consequently accounts ran into each other, making it necessary to forward some to other parts of the ledger and thus throwing them out of their natural order. Mixing the accounts in this manner always increased the danger of posting to the wrong account.

When transferring accounts in the old way, two trial balances had to be taken off—one of the old ledger, and one of the new ledger after the accounts had all been transferred. Of course these trial balances never agreed, and then came the never-ending and laborious task of searching and "checking" through the ponderous ledgers.

In the loose leaf ledger there is an account on every leaf—no blank leaves reserved for future use, consequently the book is much smaller, more compact and easier to handle. This feature, also, facilitates posting, as there are no "dead accounts" or extra leaves to handle over and over again. The accounts never change their positions, their arrangement always remaining relatively the same.

By transferring the "filled leaves" to their separate accounts in the transfer ledger, the record covering each account for the period of their entire existence in the bank is always together, and not scattered through perhaps half a dozen ledgers.

In taking off trial balances there is less danger of skipping an account, as there are no crowded pages, and for every page turned an amount must be set down. The leaves of the ledger may be "ruled reverse," thus throwing every account on the right-hand page, while the opposite page appears upside down.

The individual book-keeper keeps "on the side," as it were, three little memorandum books. One he uses for recording new accounts in the order in which they are opened, one for accounts closed, and the other for overdrafts. These little books are especially useful to the cashier in





directors' meetings. At each meeting he is enabled to report all the new accounts opened since last meeting, threby keeping alive their interest in getting new business. By having it brought to his attention, also, whenever a depositor closes his account, the cashier can at once investigate and ascertain the reason for the withdrawal. A polite and courteous letter will often bring an old customer back again. The little book containing overdrafts shows at a glance who are overdrawn, when they are notified, and how long the overdrafts have been standing.

DAILY PROOFS.—When a journal, or "debit and credit book," is used in connection with the individual ledger instead of the proof ledger, various schemes are employed to "prove" the posting; but they are all more or less imperfect. One method in common use is as follows:

Take a slip of paper two columns wide with room at the top for the date, and after each item is posted to the ledger account, take the difference between the "old balance" and the "new balance" and place the result in the debit or credit column, according to whether the item posted is a deposit or check. When the entire posting is done, if correct, the footing of the credit column of the slip should agree with the footing of the credit side of the debit and credit book, and the debit footing of the slip with the total checks on the debit and credit book. If either column of the slip should disagree with the corresponding column of the debit and credit book, the error is located by checking separately the items in that column on the slip with the items on the debit and credit book. Thus it is readily ascertained in what account an error occurred.

Some book-keepers do not take this proof off as they post, but wait until the next morning after the work becomes "cold" and there is less danger of overlooking an error.

To facilitate calling back the ledger, the book-keeper usually places the deposit tickets and checks in the ledger at the several accounts to which they belong. The slips and checks are inserted so that they project from the book and serve to "mark" the accounts. The book-keeper therefore turns very rapidly to the accounts as his assistant calls the names and amounts, and having the item in his hand, at the same time compares the entries on the ledger with the item itself.

This method of "proving" the ledger is very unsatisfactory because it does not eliminate the necessity of "calling back" the ledger, the most irksome task connected with the individual books. In fact, it does little more than prove that amounts have been correctly posted as to the figures. It does not prove that items are all posted to the proper account, or that a debit has not been posted as a credit, or a credit as a debit, or that an amount has not been posted twice, etc.

The following is another method sometimes used: Take a long slip of paper with four columns instead of two—two columns on the debit side and two on the credit side. When an item is posted to an account—and we will suppose it to be a credit—the "old balance," that is, the balance standing to the credit of the account before the deposit is added, is entered in the first column on the credit side of the slip, while the "new balance," that is, the balance created after the deposit is added to the former balance, is placed in the second column on the credit side of the slip. When the posting is done the four columns on the slip are footed, the difference between the two on the debit side corresponding with the total checks on the debit and credit book, while the difference between the two columns on the credit side "prove" with the total deposits.

If upon comparing these columns they show a discrepancy, the error cannot be so easily located as in the first proof. If the error is in posting the credits, for instance, it is necessary to begin at the top of the slip and take the difference between the two balances of each account, compare them to the corresponding credits on the debit and credit book until you come to two balances, the difference between which does not agree with the corresponding credit.

While this proof is perhaps a little more "effective" than the first, its advantages are not sufficient to compensate for the great additional amount of time and labor required to operate it. It will detect a credit posted as a debit and a debit posted as a credit, but not an amount posted to the wrong account, etc. A "call back" of the ledger is also necessary.

FILING DEPOSIT TICKETS AND CHECKS.—After the deposit slips and checks have been posted to the individual ledger, the final book of entry, they are ready for filing. Before the checks are filed, however, they are canceled by stamping them "Paid" across the face with a rubber stamp, or perforating them. They are then filed in cabinets made especially for the purpose.

These cabinets contain as many drawers as the number of the accounts appear in the ledger. The depositors' names are written or printed at the top of these cardboard partitions, which are so shaped that one partition does not obscure the name on the next one behind it.

Before filing, deposit tickets are always stamped across their face with the date upon which they were received. This is done to correct those improperly dated and to supply the date upon those left undated.

Deposit tickets are also filed in cabinets, each depositor having a separate compartment. Two cabinets are necessary when tickets are filed in this way—a "current cabinet" and a "transfer cabinet." In the current cabinet the deposit tickets are filed each day in their several compart-





ments. When pass books are left to be balanced, all the deposit tickets belonging to such accounts are removed from the current cabinet, and after being checked with the entries on the pass books, are filed in the transfer cabinet.

Thus the current cabinet does not contain the deposit tickets of any customer back of the date his book was last balanced.

In some banks deposit tickets are filed according to date, each day's ticket being filed together. The tickets are perforated at the top with two small holes and placed upon a spindle. Each day's tickets are separated from each other by thin sheets of cardboard, which are dated. At the end of each month they are tied together with a wire thread and filed away in the vault.

BALANCING PASS BOOKS.—The work of balancing depositors' pass books belongs to the individual book-keeper, or his assistant. If it can justify. Each drawer is divided into compartments by heavy cardboard partitions. A compartment is given to each depositor, the accounts being arranged in the drawer in alphabetical order, or in the same order as they be avoided, however, the employe who keeps the individual ledger of a bank should not be entrusted entirely with the balancing of pass books, although the limited force of many country banks makes it necessary.

Checks as well as deposits used to be entered on the pass book, but since the introduction of the adding machine, this method has become obsolete. Deposits only are entered on the pass book, while the checks are listed on separate envelopes or slips.

When a depositor leaves his pass book to be "written up," as he should do at least once a month if his account is active, it is taken in charge first by the assistant book-keeper, who gets out all the canceled vouchers which have been paid since the book was last balanced, and also all his deposit tickets.

After comparing the deposit slips with the credits on his pass book and entering from the tickets themselves those which may not be on the book, the checks are listed on the adding machine, or with a pen and ink on a separate slip, if the bank has not provided themselves with a machine.

He then foots the deposits, putting the total in light lead pencil figures on the line next below the last deposit. Under this is set down the "total checks," which are subtracted from the "total deposits" and the difference entered on the next line below, which is the "balance."

The pass book is then turned over to the individual book-keeper, who compares this balance with that on his ledger, and if they agree he erases the lead pencil figures and enters them in ink. The book is then ruled off, showing the balance with which the depositor begins anew. This ruling

is accomplished with a single impression of a rubber stamp, as the following will illustrate:

In order to show on the ledger when an account was last balanced, it is not necessary to rule the account off and bring the balance down, as the balances are carried in the balance column daily. Merely the date is stamped with a rubber stamp dater to the left of the debit column and on the line with the last balance.

When pass books have been thus balanced and verified, the checks with the slip upon which they are listed are placed in the book and the books are filed away in convenient cabinets made especially for the purpose. The assortment and filing of pass books after they have been balanced is an important matter. It is a bad practice to throw them promiscuously in a drawer, so that the hand cannot readily be laid upon any one of them. Customers become annoyed at having to wait while search is being made through a stack of books.

OTHER SYSTEMS.—There are various other systems of keeping the individual books employed by different banks. It will not be attempted, however, to describe the several systems in detail, or to enter into a discussion of their relative merits, as it would only tend to confuse those who are unfamiliar with bank book-keeping.

The most important of these systems now in use are:

The Rand, the Eager, the Boston, the New York, the Bound Three-Column Ledger.

### (207) THE RAND.

The Rand ledger is divided into sections by sheets of stiff cardboard. Each section may contain 20 or more leaves. The cardboard sheets extend beyond the edge of the other leaves, leaving a margin wide enough to hold little metal slides. In these metal slides are inserted little slips of paper bearing the names of the depositors.

Beyond the outer edge of the slips there is still space enough left in the slide to contain another slip, upon which are written the balances of the depositors.

Whenever an item is posted to a depositor's account, thereby changing his balance, the slip containing his old balance is removed and replaced by another upon which is written the "new balance."

As these balances are all in sight and in correct alignment, it will be seen that a daily trial balance of the entire ledger can be had by simply footing these balances.

While this ledger saves the labor of forwarding unchanged balances, yet it is a question whether this advantage is not more than counter-





balanced by the time and labor consumed in manipulating this mechanical device.

### (208) THE EAGER.

The Eager ledger is similar in all its important features to the ordinary Three-Column ledger. Each account is given a full page, or leaf if the ledger is loose leaf, and the name of the customer is written at the top of the page.

It is ruled with columns for "Checks in Detail," "Total Checks," "Deposits," and "Balance." The book is divided into four sections, a stiff partition separating each section. These partitions project beyond the edge of the other leaves far enough to support a pad of "proof sheets" four columns wide. In the columns of the "proof sheet" are recorded "deposits," "checks," "old balances" and "new balances" belonging in each section. There is an index leaf for each section, which enables the book-keeper to readily turn to any account in the section.

The posting is done in this manner: Turn to the account to which an item is to be posted, but before posting it set down the last balance of the account in the column "old balances" on the proof sheet. Then after posting the item enter the last balance in the column "new balances" on the proof sheet. The deposit tickets and checks having been previously entered in their respective columns of the proof sheet, when the posting is done the proof sheet shows the total deposits, total checks, and old and new balances of each section.

The posting is proven as follows: Add the total deposits in each section to the sectional balance—that is, the total of all the balances in the section, and subtract the total checks. This amount ought to equal the amount procured by adding the new balances to the sectional balance and subtracting the old balance.

### (209) THE BOSTON.

In this ledger the names are written in alphabetical order, one under the other, from the top to the bottom of the page. The accounts are carried horizontally across the page. The leaves are ruled with six spaces, sufficient to accommodate a week's business without turning the page. Each space is ruled into columns for "Checks in Detail," "Checks," "Deposits," and "Balance."

The book is composed of long and short leaves. Between each long leaf are several short leaves, usually about 12. The object of these short leaves is to enable the book-keeper to forward the balances to the next page without re-writing the names. When they are turned back to the

left and lie flat on the long leaf, the names written on the margin of the long leaf are always visible.

The balances may also be transferred from one page to the next without having first to write the balances on the first page and then turning the leaf back and forth each time a balance is carried over to the next page. Balances are forwarded by folding to the left the short leaf so that the "balance" column at the beginning of the next page will appear next to the "credit" column of the first page. When all the balances on the page are forwarded, the "fold" is turned back, and the new balances then appear on the next page.

The chief advantage of this book is that it furnishes a daily proof of the entire ledger. It involves an immense amount of labor, however, and is rather inconvenient in writing up pass books, and attendant with more than ordinary danger of posting to the wrong account. This danger is obviated to a certain extent by posting checks in red ink and deposits in purple ink.

### (210) THE NEW YORK LEDGER.

The New York bank balance ledger differs from the Boston only in the matter of ruling. The order of the ruling is simply reversed. First after the margin for names comes the "balance" column, next "Deposits," "Checks in Detail," and "Total Checks." As with the Boston system, the posting is done direct from the deposit tickets and checks, without the aid of any other auxiliary books.

THE BOUND THREE-COLUMN LEDGER.—This is known as the "old style ledger." Each account is given a full page, but for inactive accounts some of the pages are divided into halves and quarters. Each page is double ruled—that is, divided by a heavy line running from top to bottom through the center of the page, each half-page comprising the "date," "debit," "credit," and "balance" column.

It is usually a ponderous volume made to accommodate the largest number of accounts for the longest possible time. The accounts are entered in alphabetical order so far as possible, each letter being allotted a certain amount of space, according to the number of accounts under each letter. From the amount of space consumed by each account in the preceding ledger, the number of pages to be allotted to each account in the new ledger is approximated.

In spite of the most careful calculations, however, the accounts will run into each other, thereby necessitating the forwarding of many of the accounts to some other part of the ledger out of their natural order.

In connection with this ledger it is necessary to keep a "journal or





debit and credit book," in which the checks and deposit tickets are entered. In some banks the name of the payer, the number and the amount of each check is entered, but such detail is really unnecessary. The initials of the payer and the amount of the checks is sufficient for all purposes. Only the totals of the deposit tickets are entered.

If the accounts of the bank are numerous and very active, it is advisable to enter the checks and deposit tickets in separate books, the deposits in the "Credit Book" and the checks in the "Debit Book."

### (211) CERTIFICATES OF DEPOSIT REGISTERS.

Most banks issue both demand and time certificates of deposit. Demand certificates are, of course, paid immediately upon presentation of the certificates, if properly indorsed, and do not draw interest. Time certificates are payable at specified times and bear interest at whatever rate may be agreed upon.

Time certificates of deposit usually contain the stipulation "No interest after six months unless renewed." This provision is inserted in order to induce the depositor to renew the certificate promptly when due and not allow it to remain outstanding any great length of time. In this way the certificates are kept "fresh" and overdue interest does not accumulate.

A time certificate of deposit reads as per Diagram 5.

For the purpose of keeping a complete record of all certificates issued and paid by them, banks employ a systematic method of registering each certificate. The book upon which this record is kept is called the Time Certificate of Deposit Register. As time and demand certificates must be kept in separate accounts on the general ledger, it is necessary to keep two registers, although both are alike as to form and ruling.

Each page of the Time Certificate of Deposit Register has both a debit and credit side. On the credit side of the page are entered the certificates as they are issued, with a complete description as follows: The date issued, the name of the person to whom it is issued, the number, and the amount. A "total" column follows, to which is carried the total of each day.

When a certificate becomes due and is paid or renewed, it is traced by its number back to the date of issue and a small check mark placed opposite the number. There is also a column provided next to the "total" column for noting the date the certificate was paid. On the debit side of the register is then entered the date of payment, the number, the amount, and the interest which was paid upon it.

The total certificates issued and paid on each day are posted from

this register to the general ledger account. The register totals should agree with the "certificate" columns on the cash book.

The total time and demand deposits, as shown by the difference between the debit and credit sides of the registers, should always be the same as the balance shown by the general ledger. The certificate registers are also proved by taking off on the machine, or listing with a pen, all the certificates which have not been "checked." The totals should correspond to the ledge balance.

Diagram 6 shows a page of the Certificate of Deposit Register.

### (212) CERTIFIED CHECK REGISTER.

The certified check register is intended to keep a complete record of all checks that are certified by the officers of the bank. A check is certified by the cashier, or any other officer or employe duly authorized, by writing or stamping the bank's acceptance across the face of the chuck, thus:

Certified.
First National Bank,
Hopedale, Ohio.
.....Cashier.

As soon as a check is certified it at once becomes the obligation of the bank, and the person issuing the check no longer has any control over it. In thus assuming the obligation of its customer, the bank must first satisfy itself that his account is good for the amount of the check and that there will always be sufficient funds in bank to meet it no matter when presented. Therefore, upon certifying a check, a corresponding amount is immediately deducted from the depositor's balance and set apart in a special fund to meet the check whenever it is presented for payment. This fund is carried on the general ledger as "Certified Checks."

The amount of a certified check is deducted from the depositor's balance by making out a "charge ticket" and charging it to his account as if it were one of his own checks. For the charge made there must be a corresponding credit. The check is therefore "registered" on the certified check register and from there credited to "Certified Checks" on the general ledger.

Banks are frequently called upon to certify checks either by the person issuing the check, the payee, or an indorser; and as considerable time may elapse between the time the check is issued and the time of its presentation, there may be a number of them outstanding at the same time. It is for this reason that an accurate record of certifications must be kept.





**Certified Check Register**

Dr. Cr.

| Date 1902 | No. | Amount | Total | Date Issued 1902 | Drawer | Payee | Date of Check | No. | Amount | Total | When Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dec 2 | 100 | 100 | 100 | Dec 1 | J. T. Adams | F. D. Draper | Dec 4 | 100 | 100 | 100 | Dec 2 '02 |
| | | | | 2 | C. M. Dixon | F. & H. Co. | | 01 | 500 | | |
| | | | | | T. A. Scott | | | 02 | 250 | 750 | |
| | | | | 4 | James Young | W. R. Cooper | | 03 | 130 | 130 | |
| | | | | | | | | 04 | | | |
| | | | | | | | | 05 | | | |
| | | | | | | | | 06 | | | |
| | | | | | | | | 07 | | | |
| | | | | | | | | 08 | | | |
| | | | | | | | | 09 | | | |
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DIAGRAM 7.

Hopedale Ohio _____ 190__ No. _____

The Commercial National Bank

Pay to _____ or order

CASHIERS CHECK

_____ Dollars

_____

Cashier

DIAGRAM 8.

**Cashiers Check Register**

Dr. Cr.

| Date 1902 | No. | Amount | Total | Date 1902 | To whom issued | No | Amount | Total | When Paid |
|---|---|---|---|---|---|---|---|---|---|
| Dec 2 | 1801 | 3 60 | 3 60 | Dec 1 | R. D. Blackmore | 1800 | 55 | | |
| | | | | | Ohio Gas Co | 01 ✓ | 3 60 | 58 60 | |
| | | | | 4 | F. R. Davis & Co | 02 | 75 | | |
| | | | | | N. W. Halsey | 03 | 3 60 | 78 60 | |
| | | | | | | 04 | | | |
| | | | | | | 05 | | | |
| | | | | | | 06 | | | |
| | | | | | | 07 | | | |
| | | | | | | 08 | | | |
| | | | | | | 09 to 20 | | | 114 |

DIAGRAM 9.

Dividend No.

Hopedale, Ohio _____ 190__ No. _____

The Commercial National Bank

Pay to _____ or order $_____

_____ Dollars

_____

Dividend Check

Cashier

DIAGRAM 10.

The certified check register serves this purpose. It shows at all times just what checks are outstanding.

The ruling of the certified check register is similar to that of the certificates of deposit register, as per Diagram 7.

On the credit side of the page are entered the checks as they are certified, and those that are paid are entered on the debit side. First, is entered the date of certification, then the name of the payee, the number, the amount, and the total for each day.

When a check is paid a small check mark is placed opposite its number, and the date of its payment entered in the "paid" column. Then on the debit side the date of payment is entered, the number, the amount, and the total checks paid on each day. The check is then canceled and the original "debit slip" which was filed with the canceled vouchers in the check cabinet is replaced by the certified check itself.

The total of the checks certified for any one day, as shown by the credit side of the page, should correspond with the total of the "certified check" column on the debit side of the cash book; the total checks paid as appear on the debit side with the same column on the credit side of the cash book. The total debits and credits of each day are posted from the certified check register to the "Certified Check" account on the general ledger.

The difference between the debit and credit sides of the register should be the same as the balance carried on the general ledger. A trial balance may be had by taking off on the machine the amounts of all checks not "checked" or designated as "paid," their total corresponding to the general ledger balance.

### (213) CASHIER'S CHECK REGISTER.

A cashier's check is simply a bank's draft on itself. It is usually signed by the cashier, and in form differs little from the ordinary draft, as is shown by Diagram 8.

Cashier's checks are given for various purposes. They are sometimes issued to public officers as receipts for money deposited by them temporarily; and to contractors, bidders, or other persons compelled to put up cash or its equivalent as a guarantee of good faith in the fulfillment of a contract.

Banks also issue cashier's checks in payment of their own bills. As these checks require the indorsement of the payee the same as any other check or draft, and as they usually state briefly on their face for what they were given, they furnish the most systematic and convenient method of preserving receipts.





The cashier's check register is designed to keep a complete record of all cashier's checks issued and paid. When a check is issued it is necessary to make the following entries on the credit side of the page: The date of issue, the name of the person to whom it is issued, the number, and the amount. In the next column the total of the checks for each day are entered. There may also be another column to note for what the checks are issued.

When a check is paid it is checked opposite its number, and the date of payment noted in the proper column. It is then entered on the debit side with the date, number and amount. A "total" column is also provided for entering the total of the checks paid each day. The total checks issued and the total checks paid each day are posted from the register to the general ledger "certified check" account.

Diagram 9 shows the ruling of this register.

### (214) DIVIDEND CHECK REGISTER.

Dividends are usually declared and payable at fixed periods, and are distributed prorata to the stockholders by "Dividend Checks" drawn payable to their order.

A dividend check differs in form from a cashier's check only in that it has the words "Dividend Check" printed across its face instead of the words "Cashier's Check." See Diagram 10.

When a bank declares a dividend it at once charges the whole amount to profit and loss account and throws it over to the credit of the dividend account on the general ledger. It then issues checks to the individual stockholders for the amount due them, and as these checks are presented and paid they are charged to "Dividends Unpaid."

It is for the purpose of keeping a complete record of the distribution of dividends that the dividend register is kept.

The entries above show that on July 1, 1902, a semi-annual dividend was declared on the capital stock of the First National Bank, which was payable on the same day, and that the number of the dividend was "No. 5." On the credit side, under the date the dividend was declared, are listed the names of the stockholders with the number of shares owned by each and the amount of each check opposite.

Dividend checks were then issued to the stockholders corresponding to the number and amounts on the register. When these checks are presented and paid, they are "checked" opposite their number, and the date of their payment stamped, or written, in the "paid" column. On the debit side of the page the following entries are made: The date paid, and the number and the amount of each check. The total checks paid on any

one day is compared to the total on the credit side of the cash book, and if they agree the amount is posted to "Dividends Unpaid" on the general ledger.

The difference between the debit and credit sides of the register should always correspond with the credit balance of this account on the general ledger.

### (215) THE DISCOUNT REGISTER.

The discount register in up-to-date banks is a book upon which is kept a complete record of all notes discounted. The ruling occupies a full double page, the parallel lines extending across the two pages being numbered consecutively. This register, as are other bank registers, is practically self-numbering—that is, on each double page in the "No." column is printed the number of each line from 00 to 49. By prefixing the figures on the top line of each page, necessary to produce the consecutive number to the last number on the preceding page, the printed numbers complete the numbering on that page.

Notes are entered in consecutive order on the numbered lines under the date on which they were discounted. Each note thus receives a number, by which it thereafter becomes identified.

It is of the greatest importance that a full and detailed descriptive record of every note should be kept. The "notes and bills" represent the bulk of the bank's assets, and were its record incomplete concerning them, serious complications would result from their loss. Besides, it is often necessary to trace loans through various books, and if the discount register is properly kept such a task may be easily and speedily accomplished.

The discount register should contain the following information regarding each note: The date it was discounted, the name of the payor, the indorser, for whom the note was discounted, the bank and place where it is payable, the date of the note, the time it is to run, when it is due, the number, the amount, the discount, and the date the note is paid or renewed.

The discount register also has a credit space, in which is entered a brief description of all notes paid. Under each day are entered the number and amount of each note, and there is also a column in which to carry each day's totals. The book affords a complete record of the notes and bills, and the debit and credit feature greatly simplifies "checking" the account. It may be ascertained at a glance whether the interest received has been correctly entered and whether a note has been paid or renewed.

The register also furnishes the totals for three general ledger entries, namely, the total debit loans, total credit loans, and discount credited to profit and loss. These totals are verified by comparing them with the





footings of the debit and credit columns for loans, and the debit column 1or "Discount," on the cash book.

Diagram 12 is the ruling arrangement and form of the discount register, showing how the various entries are made.

### (216) DISCOUNT AND COLLECTION TICKLER.

In this auxiliary record, after the notes have been thus recorded in the discount register, before they are ready for filing, they are entered in another book called the "Tickler." This book contains a record of all notes and collection items falling due on each business day. There is a space allotted to each day of the week, except Sundays and holidays. At the top of each space is printed the names of the days of the week, with blank spaces for inserting the dates to correspond.

It is not necessary to enter as full a description of each note as is contained in the discount register, as the notes are all numbered and the record in the register may readily be referred to at any time. Under the date of the maturity of a note the following entries are made: Its number, the maker, or payor, his postoffice address, where payable, and the amount of the note.

It is apparent why such a record of all notes falling due each day should be kept. Banks usually notify their borrowers at least a week before their notes become due, and certain disposition may have to be promptly made of various notes upon the day of their maturity. It may be necessary to protest some in order to hold indorsers while others may be payable out of town, and must be forwarded for collection within a reasonable time before they are due. Unless the notes were thus classified on the tickler many would run overdue, and the bank would suffer much loss through negligence to properly attend to them.

Banks doing a large collection business use a separate tickler for collections, but a single book for both collections and discounted items usually meets the requirements of the average country bank. The separate class of items are distinguished from each other by being entered in different colored inks, the notes belonging to the bank itself being entered in red ink, and the collections in black ink.

After all the necessary entries from the notes themselves have been made on the cash book, discount register and the tickler, they are then filed away in such a manner as the volume of business may determine to be the safest and most convenient. They are usually filed in large leather note cases, which contain a pocket for each letter of the alphabet. They

**DISCOUNT**

Dr. Dr.

| When Discounted | | Payer | Endorser | For Whom Discounted | Where Payable | Date |
|---|---|---|---|---|---|---|
| 1902 Dec | 4 | John Jones | William Smith | J J. | Bank | Dec 4 |
| | 4 | John Smith | Collateral | | First Nat'l Pitts | Dec 4 |

**REGISTER**

Dr. Dr. Cr. Cr.

| Time | When Due | No. | Amount | Discount | When Paid | Date | No. | Amount | Total | Interest |
|---|---|---|---|---|---|---|---|---|---|---|
| 90 days | March 04 | 1000 | 7465 | 111 97 | | 1902 Dec 4 | 500 | 1956 | 5506 | |
| 90 | March 04 | 01 | 250 | 3 75 | | 4 | 325 | 3550 | | |
| | | 02 | 7715 | 115 72 | | | | | | |
| | | 03 | | | | | | | | |
| | | 04 | | | | | | | | |
| | | 05 | | | | | | | | |
| | | 06 | | | | | | | | |
| | | 07 | | | | | | | | |
| | | 08 | | | | | | | | |
| | | 09 | | | | | | | | |
| | | 10 to 20 | | | | | | | | |

DIAGRAM 12.

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**TICKLER**

Monday, March 4, 1902

| No. | Payer | P.O. Address | Where Payable | Date Discounted | Amount | Remarks |
|---|---|---|---|---|---|---|
| 1000 | John Jones | City | Bank | Dec. 4, '02 | 7465 | |
| 1 | John Smith | Pitts. | Pitts | Dec. 4, '02 | 250 | |

DIAGRAM 13.

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**Collection Register**

| Date Received or Date Sent | | Payer | Owner | Their No. | To Whom Sent | Date of Maturity | | Our No | Amount | | Date Paid | | Date Returned | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dec. | 1 | Wm. Goodwin | Wood & Co. | | First Pitts | Dec. | 4 | 1001 | 58 | 97 | Dec | 4 | | | |
| | | | | | | | | 02 | | | | | | | |
| | | | | | | | | 03 | | | | | | | |
| | | | | | | | | 04 | | | | | | | |
| | | | | | | | | 05 | | | | | | | |
| | | | | | | | | 06 | | | | | | | |
| | | | | | | | | 07 | | | | | | | |
| | | | | | | | | 08 | | | | | | | |
| | | | | | | | | 09 | | | | | | | |
| | | | | | | | | 10 to 20 | | | | | | | |

DIAGRAM 14.

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are thus classified so that any particular one may be easily and quickly referred to.

Diagram 13 shows the form of the discount tickler.

### (217) THE COLLECTION REGISTER.

Notes are often discounted by a bank which are payable out of town. Customers also deposit drafts on out of town parties, or leave for collection various items, which must later be sent to other banks to be presented to the parties upon which they are drawn.

An accurate record of all such items sent out must of course be kept. The collection register is intended to serve this purpose. It shows at all times just what items are still outstanding, and the fate of those reported upon. Those not reported upon within a reasonable time are immediately inquired after, thus insuring promptness in the handling of all collections. Notes discounted and owned by the bank itself which are payable out of town are entered on the register in red ink on the day they are forwarded for collection. Such items are usually forwarded about ten days before due.

Items are entered in the register in numerical order, each collection thus receiving a "collection number." The following information concerning each item sent out for collection is contained in the register: The date the item is sent out, its number, the maker, the owner, to whom it is sent for collection, the date of its maturity, the amount and the date returned unpaid or the date paid.

Diagram 14 shows the ruling of this register.

### (218) CASH AND REMITTANCE LETTERS.

It has been seen that in the ordinary course of business many checks and other items come to a bank over its counter or through the mail which are not drawn on the bank itself or on other banks in the same town, but on banks which are perhaps scattered throughout the country.

Checks on other banks outside of town are usually deposited as cash, the depositor's account being credited with them at once. These items must therefore be sent out through the mail to eventually reach the banks upon which they are drawn.

All such checks, however, are not sent direct to the banks upon which they are drawn. Such a system of collection would incur too much expense, time and labor. Usually a country bank will perhaps have three or four "reciprocal accounts," according to the volume of its business with banks in nearby towns, and accounts with at least two "reserve banks."

Of course a New York account is indispensable to any bank, as it is

necessary for them from time to time to use New York exchange in business transactions. Certain collections made for outside banks must be remitted for in New York exchange, while customers frequently require New York drafts to send to distant parts of the country. Besides its "reserve account" with a New York bank country banks usually keep reserve accounts with at least one large city in its own state—usually the city nearest to which it is located.

Only items drawn directly on New York and a few other eastern cities are sent to their New York correspondent, as they do not collect other items at par, but make a small charge upon them, no matter how large a balance the bank carries with them. The clearing house rules compel them to do this.

A country bank therefore depends upon its "reserve agents" in other cities to collect the majority of its checks. In sending these checks out in the mail it is necessary that a complete descriptive record of every item be preserved, as there is a possibility of their being lost in the mails, or that the entries may have to be referred to at some future time.

Formerly banks copied these items in "Remittance Registers," and then a second copy had to be made on the letter accompanying them to the banks to which they were sent. Other banks copied them in detail in the general ledger. Now, however, banks are universally adopting what is known as the "Carbon Manifold System" for recording the various items sent to banks for collection and for credit.

By this method banks acquire two copies of a complete record of its remittances at a single writing—one copy being the letter to be sent to the bank along with the items listed, while the other remains in the bank as its own record.

The "Remittance Sheets" upon which the items recorded are unbound, only a few at a time being inserted into the Remittance Sheet Holder, which holds them firmly together while they are being filled out. When these sheets which have been placed in the holder are all written up they are removed and replaced by a lot of new sheets, while the old ones are transferred to the transfer binder.

The footings of the remittance or cash letters to the several banks should agree with the corresponding columns on the credit side of the cash book, the totals then being posted to the general ledger from the remittance letters themselves. Diagram 15 of the cash letter to the First National Bank of Pittsburg is so plain as to make any further explanation unnecessary.

Country banks receive through the mail checks and other items from banks with whom they do not have any "reciprocal" relations, and instead





of running an account on the ledger with these banks and crediting such items to their account, they remit for them at once by draft on one of their reserve agents, less a small charge to cover the cost of remittance, etc.

In order to preserve a record of all such items received and remitted for in this way, the bank accompanies the draft with a "Manifold Remittance Letter." This letter refers to the date of the letter from the bank in which the items were sent, or their collection number, and then the payor and the amount of each check is listed. The letter shows the total of the items, the exchange deducted and the balance for which the draft is issued.

From these letters the amounts and the exchange are entered in the "Draft Registers," and drafts issued to correspond. As these corresponding entries are made on the cash book from the letters of the banks sending the items (the items being entered either in the "N. Y." column or the "Pittsburg" column, according to whichever bank the drafts are issued on) one serves as a check on the other, the same entries being made on both books, but from two different sources.

Diagram 16 will fully illustrate the method of writing up the remittance letters.

### (219) THE LIABILITY LEDGER.

The liability ledger is intended to keep a line on the credit of the borrowers. It is a little book of considerable importance, and yet it is quite doubtful if the book is really known in many country banks. The chief advantage of the book lies in the fact that it brings together under one head the total indebtedness to the bank of every borrower.

A borrower frequently obtains more credit than his responsibility warrants simply because the officers of the bank are ignorant of the true extent to which he is already indebted to the institution. Having no condensed record of his liability, except as to the scattered notes in the note case, from which at the time he is not likely to ascertain the true status of affairs, the banker continues from time to time to make advances without realizing that he has already ventured beyond the bounds of safety.

In making advances to a customer, besides taking into consideration his direct indebtedness to the bank, there is another consideration which the banker should not overlook—and that is his liability as an indorser. The liability ledger is not only designed to show the total indebtedness of a borrower, but also his liability to the bank as an indorser or guarantor of the notes of other borrowers. There is quite as much danger of a bank extending too much credit to their customers as indorsers as well as borrowers. With a means ready at hand of ascertaining the total liability

of a customer both as principal debtor and as indorser, this danger is avoided to a great extent.

Much other valuable information concerning the borrowers of a bank may be noted in the liability ledger. On the page occupied by his account may be entered his estimated wealth, the limit placed upon his credit by the directors, his business and character, and whether or not each note has been promptly attended to and how often renewed.

The liability ledger is made in loose leaf style, and is very small, the size of the leaves being only about 5 by 8 inches. The convenient size of the book enables the cashier to keep it in his own desk where it is always accessible for immediate reference.

Its mechanism is similar to the larger loose leaf ledgers, the leaves being removable, but held compactly together when locked. Each account, of course, occupies an entire leaf, and as an account is opened with not only every borrower of the bank, but also with every indorser, a large number of accounts are necessarily handled in this ledger.

Posting to the liability ledger is not usually done direct from the notes themselves, but from the discount register. An account is first opened with the maker of the note, his name being properly indexed. At the top of the page is entered his name and address, his account number, and the number of the sheet. The form of the ruling is such as to admit of the following entries: The date the note was discounted, the number, by or for whom indorsed, the amount as principal debtor or as indorser, and date paid or renewed. A page of the ledger is exhibited on Diagram 17.

### THE GENERAL BOOKS.

The duties and responsibilities of the general book-keeper are not so exacting and are less irksome than those devolving upon the individual book-keeper. His books do not deal with endless detail and require hours of wearisome search for evasive differences. They bring him in closer touch with the important affairs of the bank, for their pages disclose much confidential information, admitting him to many secrets of business management. The general book-keeper is thus enabled to watch the progress of the bank from day to day, and to study the conditions and development of its business.

Upon whomever the duty of keeping the general books devolves, whether an officer or clerk of the bank, he should have a thorough technical knowledge of book-keeping and accounting. He should be broad-minded, and ever on the alert for new and improved ideas and methods which can be advantageously adapted to the needs and requirements of his





**THE FIRST NATIONAL BANK**

HOPEDALE, OHIO. Dec. 4 1902

To First National Bank
Pittsburgh Pa.

ENCLOSED FIND FOR COLLECTION AND CREDIT THE FOLLOWING ITEMS:

| No. or Date | | Drawn By | Drawn On | Last Endorser | Amount | |
|---|---|---|---|---|---|---|
| 430 | | C.H. Smylie | First Columbus | H.W. Clarke | 540 | |
| 11 | 15 | Scott Rodgers & Co. | Farmers Toledo | C.E. Bradley | 1050 | |
| 9250 | | F.E. Phillips | Atlas Cin. | F.W. Andrews | 2750 | |
| 226 | | S.C. Webber | Fourth Phila. | D.B. George | 47 | 85 |
| | | | | | 4387 | 85 |

DIAGRAM 15

**THE FIRST NATIONAL BANK**

HOPEDALE, OHIO. Dec. 4 1902

To Second National Bank
Pittsburgh

ENCLOSED FIND DRAFT AS MENTIONED BELOW IN PAYMENT OF THE FOLLOWING COLLECTIONS:

RESPECTFULLY YOURS, _____ CASHIER

| Your No. or Date of Letter | Drawer | Amount | |
|---|---|---|---|
| 12/3 | C L. McKee & Co. | 581 | 99 |
| | Total | 581 | 99 |
| | Less Exchange | | 50 |
| | Amount of Draft | 581 | 49 |

DIAGRAM 16

**Liability Ledger**

NAME John Jones — COUNT NO 250 — SHEET NO 1

| Date Discounted | | No. | Name of Endorser or Principal | As Endorser | | As Principal | | Date Paid | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1902 Dec. | 1 | 950 | J.W. Fleming | 500 | | | | | |
| | 4 | 1000 | William Smith | | | 7465 | | | |

DIAGRAM 17

own bank. The general books should be kept in such a manner as to enable the book-keeper at any time to make out analytical statements in plain and concise form of the various accounts on his ledger.

Keeping the general books in a country book does not as a rule occupy the entire time of one man. He may also do most of the "counter work," write up the cash and remittance letters, etc.

The general ledger is a resume of each day's business. As the title indicates, it does not deal merely with a particular class of accounts, but has to do with all the accounts making up the "Resources" and "Liabilities" of the bank. All other books are really a part, or auxiliary, to the general ledger, furnishing the details of the several accounts, while only the totals are carried to the ledger.

In some banks the general books consist of a journal, ledger, and daily statement book. The more modern method, however, is a combination of these three books into one large volume, the general ledger, which is kept on the Boston System. The titles of the accounts are printed at the extreme left end of the left-hand page, the space across the double page being divided into six divisions, each division representing a day of the week. Each of these divisions is ruled with three columns—debit, credit, and balance. All the items of "Resources" occupy the upper half of the page, and the "Liabilities" the lower half.

Diagram 18 shows the general ledger with the totals of the various accounts posted from their different sources. These totals can easily be traced back to the several illustrations used in this series of articles.

Loans and Discounts—The entries made to this account are secured from the discount register. By referring back to the cut used to illustrate the ruling of this register, you will find that the debit and credit items on the ledger agree with the corresponding total on the register.

United States bonds to secure circulation—National banks are required to secure their "circulation" by a deposit with the United States treasurer of an equal amount of United States bonds. The capital of the First National Bank being $50,000, a like amount of bonds were purchased and charged to this account. This account remains unchanged unless the bank should reduce its circulation and sell a corresponding amount of its bonds, the same being credited to the account.

Premium on United States Bonds—In purchasing the bonds to secure its circulation a bank must go into the open market and pay the market price for them, which is usually above par. The amount which it is thus compelled to pay in excess of the par value is charged to the premium account. This account is carried on the ledger as an asset because if the bank should sell the bonds they would likewise realize a premium on them. When these bonds become due, however, the government will only pay their face value, so that as the date of their maturity approaches the premium on the bonds has a tendency to decrease. Banks usually make allowances for this depreciation by "charging off" from time to time a certain per cent of its premium account. This account only changes then when





**General Ledger**

SATURDAY — MONDAY DECEMBER 4, 1902 — TUESDAY

| Balance | No. | RESOURCES | Debit | Credit | Dr Balance | Debit | Credit |
|---|---|---|---|---|---|---|---|
| 246716 84 | | Loans | 7715 | 5506 | 248925 84 | | |
| 50000 | | U.S. Bonds | | | 50000 | | |
| 1800 | | Premium on U.S. Bonds | | | 1800 | | |
| 28000 | | Other Bonds & Securities | | | 28000 | | |
| 3500 | | Furniture & Fixtures | | | 3500 | | |
| | | | | D 101 57 | | | |
| 12000 | | First National Bank, New York | 29773 | R 279 30 | 11916 86 | | |
| | | | call 58 | 97 D 1031 29 | | | |
| 20000 | | First Natl. Bank, Pittsburgh | 4387 85 | R 2274 82 | 21140 71 | | |
| 550 | | First Natl. Bank, Union Town | 144 89 | 294 80 | 400 09 | | |
| 325 | | First Natl. Bank, Fairmont | 505 50 | 190 51 | 640 | | |
| 19752 16 | | Cash | | | 20051 56 | | |
| 2500 | | Redemption Fund | | | 2500 | | |
| 135 | | Cash in Transit | | | 135 | | |
| 236 | | Interest | 13 50 | | 249 50 | | |
| 2500 | | Expenses | 78 60 | | 2578 60 | | |
| | | TOTALS | | | 391838 16 | | |

**General Ledger**

| Balance | No. | LIABILITIES | Debit | Credit | Cr. Balance | | |
|---|---|---|---|---|---|---|---|
| 50000 | | Capital Stock | | | 50000 | | |
| 25000 | | Surplus Fund | | | 25000 | | |
| 2500 | | Undivided Profits | | | 2500 | | |
| 5500 | | Profit & Loss | | 116 77 | 5616 77 | | |
| 50000 | | Circulation | | | 50000 | | |
| 160 | | Dividend Checks | 120 | | 40 | | |
| 200000 | | Individual Deposits | 13069 56 | 15965 40 | 202895 84 | | |
| 2500 | | Demand Cert. of Deposit | 578 05 | 250 | 2171 95 | | |
| 50000 | | Time Cert. of Deposit | 450 | 1500 | 51050 | | |
| 2300 | | Certified Checks | | 130 | 2430 | | |
| 55 | | Cashiers Checks | | 78 60 | 133 60 | | |
| | | TOTALS | | | 391838 16 | | |

DIAGRAM 18

this is done, the premium account being credited, and the profit and loss account charged with the amount.

Bonds and Securities—A bank may purchase for investment other securities than United States bonds, in which case the amount paid for them, including the premium, if any, is charged to this account. Banks dealing extensively in bonds keep a "bond register," a book in which is

recorded every detail in regard to the bonds purchased. As is shown by the ledger the First National Bank has on hand bonds and securities amounting to $28,000.

Furniture and Fixtures—This account represents the amount expended by the bank for its equipment. It includes the safes, vaults, and all other necessary fixtures and furnishings. This account changes only when new fixtures and improvements are added, and when a certain per cent is "charged off" from time to time on account of depreciation.

Expenses—The entry to this account comes from the "expense book," in which is carried a detailed account of all expenditures of the bank each day.

Interest—The "interest" column on the debit side of the certificate of deposit register contains these figures, the amount being the total interest paid on all certificates presented upon that day.

Cash in Transit—A bank must frequently send items for collection which it is unable to collect through its "reserve agent," to other banks with which they do not have reciprocal accounts. Instead of opening an account with every bank to which they send such items a single account is carried on the ledger to which they are charged. This is the "Cash in Transit" account; and when remittances are received to cover these collections they are credited back to the account. A detailed description of checks thus sent to the several banks is furnished by the carbon copy of the letters accompanying them. The entries in the ledger are posted from the carbon letters, providing, of course, they correspond to the cash book entries.

First National Bank, of New York.—The First National Bank of New York and the First National Bank of Pittsburg, being "reserve agents," a balance is constantly maintained in each of them. The credits appearing to these accounts are the total drafts drawn on each for the day, such credits being posted from the New York and Pittsburg draft registers respectively, and also the "cash letters" received from them. These totals are posted from the letters themselves, but agree with the totals of the items which are listed in detail on the debit side of the cash book. The items in the debit column of these accounts are the totals of the "cash letters" sent to them for credit. These totals are posted from the carbon letters accompanying the items. The letters, of course, should agree with the corresponding columns on the credit side of the cash book where the checks sent to each bank are listed in detail.

The First National Bank, Uniontown—The debit and credit entries to this, as well as the other bank accounts, represent the bank's cash letters sent to them and those received from them. As in the case of the other banks these totals are posted from the letters themselves, and agree with





the corresponding entries on the cash book where they are listed in detail.

Cash—This is the actual amount of cash, including gold, silver, and currency held as "reserve" in the bank's vaults. The figures are of course taken from the cash book, being the difference between the debit and credit side at the close of the day's business. The amount should agree with that carried forward on the cash book to begin the next day's business.

Redemption Fund—National banks are required to keep on deposit with the United Stataes treasurer an amount equal to five per cent of its circulation. As the circulation of the First National Bank outstanding is $50,000, this sum amounts to $2,500, which is carried as a debit balance to the "Redemption Fund." From time to time notes of the bank unfit for use are returned to the treasury for redemption, where they are destroyed and new notes shipped to the bank to take their place. When the bank receives these notes they credit the amount to the "Redemption Fund." but as the balance of five per cent must be maintained with the treasurer, a remittance made by draft on New York is immediately forwarded to cover the amount of new notes received. This remittance is debited to the "Redemption Fund," thus throwing the balance back again to the required amount.

Liabilities. Capital Stock—This account, of course, seldom changes, except when by a vote of the stockholders it is decided to increase or decrease the capital stock.

Surplus Fund—Surplus is money set aside from time to time out of the profits of the bank as a safeguard in case of losses. Up to the present time the accumulated surplus of the First National Bank amounts to $25,000. The account is rather dormant and does not usually change except at certain dividend periods when the net earnings of the bank justify an increase, or whenever it is necessary to draw upon the account to make good any losses which may have occurred.

Undivided Profits—This account shows the balance of the profit and loss account carried over from the previous six months after interest, taxes, dividends, and all other expenses were paid.

Profit and Loss—This account shows the profits that have a cumulated since the ending of the last six months. The "Undivided Profit" account and the profit and loss account are kept separate in order that the books will show at a glance just what the gross profits for the past six months are without having to deduct the amount of net profits carried over from the previous six months. It also facilitates the task of making the semi-annual report of earnings to the Comptroller of the Currency.

Circulation—This account represents the notes of the bank secured by United States bonds outstanding.

Dividends Unpaid—When a bank declares a dividend it at once charges the amount to the profit and loss account and credits it to "Dividends Unpaid." Dividend checks are issued to the shareholders for the amount due them, the same being registered in the dividend register. As has already been explained, these checks are charged on the register as they are presented at the bank for payment. The dividend register of the First National Bank shows that there is still outstanding a dividend check for $40.

Individual Deposits—The totals placed to this account were obtained from the debit and credit columns of the proof ledger, they agreeing with the corresponding debits and credits on the cash book.

Demand Certificates of Deposit—The entries made to this account and to the three following accounts were obtained respectively from the time certificates of deposit register, the certified check register, and the cashier's check register. These entries may be verified and more clearly explained by referring back to the cuts illustrating these registers.

The Expense Account Book—This book presents an itemized statement of the expenses incurred during each month. The ruling for one month's business occupies the full double page, and is arranged so as to show the total cash paid out for all running expenses each day, and the total of every item of expense incurred each month.

The heading of the first column of the book is the name of the month, and following consecutively across the double page are 16 other columns with printed headings representing all the items through which expenditures usually occur.

This book enables the officers of the bank to more intelligently analyze the expense account, compare the expenditures of one month with the other, and note wherein certain reforms might not be practicable for the sake of economy.

Diagram 19 explains the use of the book.

Profit and Loss Book—The profit and loss book is designed to furnish an itemized account of the earnings of the bank. It not only shows what items have contributed to the profits each day, but also the total of every class of items for the month.

In the matter of ruling the idea is the same as that carried out in the expense book. One page, however, is sufficient to accommodate one month's business, and each page has a debit and credit side, as from time to time it may be necessary to make certain charges to the profit and loss account.

Thus upon a single page is exhibited not only the total earnings for the month, but also such a classification of the account as to show what





**Expense Account Book**

| Date | | Salaries | Taxes | Postage | Insurance | Printing and Stationery | Rent | Freight and Express | Water and Light |
|---|---|---|---|---|---|---|---|---|---|
| Dec. | 1 | 450 | | | | 50 | | | |
| | 2 | | | 30 | | | | 50 | |
| | 3 | | | | | | | | |
| | 4 | | | | | | 75 | | 3 60 |
| | 5 | | | | | | | | |
| | 6 | | | | | | | | |
| | 7 | | | | | | | | |
| | 8 | | | | | | | | |
| | 9 | | | | | | | | |
| | Sets | | | | | | | | |
| | 31 | | | | | | | | 114 |

**Expense Account Book**

MONTH ENDING December 31, 1902

| | Telegrams Phone Rent | Advertising | Fuel | Miscellaneous | | | Employees Bonds | Donations | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | 500 |
| 2 | 30 | | | | | | | | 30 80 |
| 3 | | 10 | 5 | | | | | | 15 |
| 4 | | | | | | | | | 78 60 |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| Sets | | | | | | | | | |
| 31 | | | | | | | | | 114 |

DIAGRAM 19

**Profit and Loss Account Book**

MONTH ENDING December 31, 1902

| Dr. Date | Item | Amount | Total | Dr. Cr. Date | Discount Interest | Exchange | Interest on Reserve Balances | Interest on Bonds | Miscellaneous | Total | Cr. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1902 Dec 1 | 29 05 | 1 50 | | 150 | | 180 | 55 |
| | | | | 2 | 2 | 95 | | | Rents | 2 | 95 |
| | | | | 3 | | 2 25 | | | 40 | 42 | 25 |
| | | | | 4 | 115 72 | 1 05 | | | | 116 | 77 |
| | | | | 5 | | | | | | | |
| | | | | 6 | | | | | | | |
| | | | | 7 | | | | | | | |
| | | | | 8 | | | | | | | |
| | | | | Sets | | | | | | | |
| | | | | 31 | | | | | | | 114 |

DIAGRAM 20

proportion of the profits belong to each and every class of items.

The figures in the "discount and interest" column represent the total discount posted from the discount register, and also interest paid on certain notes during the day. Those in the "exchange" column are posted from the draft registers, those under "Interest on Reserve Balances" from the credit slips forwarded by the reserve agents, and those under "Interest

on Bonds" from credit slips made from coupons clipped from bonds owned by the bank.

The total "expenses" for each day as shown by the total column of the expense book, and the total "profits" for each day as shown by the profit and loss book are posted to the general ledger.

The importance of these two little books can only be properly appreciated by those who have used them. The cashier finds much satisfaction in their perusal, as they so interestingly classify and analyze the two most important accounts with which the banking business deals.

Diagram 20 illustrates the profit and loss book.

The Stock Ledger—This book is designed to show who are the owners of the stock of a bank, the amount of stock standing in the name of each shareholder, and a complete history of all transfers of stock made from one shareholder to another.

Banks employ various methods and forms for recording their stock transactions, book-keepers generally having their own individual ideas on the subject. Some banks keep both a stock journal and a stock ledger, but the simpler plan is to keep only the stock ledger, combining in it the features of both journal and ledger. Through the use of this book the history of every transfer of stock, no matter how often made, can be readily traced.

In this ledger an account is opened with each original subscriber of stock. His name is written at the top of the page, or half page, according to the space allotted to each account, and his account debited with the amount of stock subscribed for.

Diagram 21 is a form of the stock ledger.

**Stock Ledger**

O. H. Brown Columbus. O.

| Date of Issue | No. of Cert. | From or To Whom Transferred | No. of Old Cert. | No. of Shares | Date Transferred | Dr. | Cr. | Balance |
|---|---|---|---|---|---|---|---|---|
| 1902 Jan 1 | 300 | From B. A. Walker | 100 | 30 | Jan 1 | 3000 | | 3000 |
| Feb 1 | 325 | To J. P. Moore | 300 | 10 | Feb. 1 | | 1000 | 2000 |
| Feb 1 | | To Self | 300 | 20 | Feb. 1 | | 2000 | |
| Feb 1 | 326 | From Self | 300 | 20 | Feb. 1 | 2000 | | 2000 |
| | | | | | | | | 114 |

The illustration above reveals that on January 1, 1902, O. H. Brown purchased 30 shares of stock of B. A. Walker; that Brown was accordingly debited with $3,000, the par value of the stock; that the number of the old certificates from which the shares were transferred was 100; and that





the number of the new certificate issued to O. H. Brown was 300. Also that on February 1, 1902, Brown sold ten shares of his stock to J. P. Moore; that the number of the certificate issued to Moore was 325; and that Brown's account was credited with $1,000, the par value of the ten shares.

In transferring a part of the shares of a certificate of stock it is necessary for the bank not only to issue a new certificate to the new stockholder for the number of shares purchased by him, but also a new certificate to the original stockholder for the remaining shares which he holds. Brown's account was therefore credited with the remaining 20 shares of his old certificate, and then charged with the new certificate which was issued to him, his account then showing a debit balance of $2,000.

A bank must, of course, have a "Book of Stock Certificates." This is a bound book containing blank certificates of stock with "stubs" attached. The stubs and certificates are numbered alike from one upward, the number of each certificate corresponding to the number on the stub to which it is attached.

Upon issuing a certificate of stock, the proper memorandum should first be made on the stub before the stock certificate is detached; and when a certificate is properly filled out and signed by the president and cashier, the person to whom it is issued signs a receipt on the bottom of the stub. When a certificate is assigned to another person and is presented to the bank to be transferred, it is canceled and attached to the original stub in the stock certificate book. The total number of shares of stock shown to be outstanding by the stubs with unattached certificates should always correspond with capital account on the general ledger.

On the back of each certificate of stock there is a form of assignment, which the shareholder transferring his stock dates and signs in blank in the presence of a witness, leaving the rest of the printed form for the officers of the bank to fill out.

It has not been attempted in this series of articles to present a system of bank accounting most commonly employed in country banks. In fact, some of the features of the system described may be strange to some bankers, and perhaps fail to meet their approval, for all have their own individual tastes and ideas, and govern the workings of their bank accordingly.

It, however, having been the good fortune of the writer to have had experience in several banks, both city and country, it was his purpose to present such a system of accounting that such a varied experience had led him to believe was most perfectly adapted to the requir-

ments of the average country bank. It is a system which throughout has stood the practical test, and there is no hesitancy in saying that for simplicity, clear, concise, and perfect record, and for the saving of time and labor, this system is as good as could be devised for any country bank.—*(E. G. Alcorn.)*

### (220) THE USE OF CARD LEDGERS IN A COUNTRY SAVINGS BANK.

Am teller in a country savings bank. We have not yet risen to departmental dignity so the duties of teller and book-keeper devolve on the same person. This fact makes it impracticable to attempt any system of balancing the depositor's accounts with the general ledger oftener than once in six months. This is done at the dividend periods, the first of January and July.

January 1st, 1905, five large ledgers containing depositors' accounts were replaced by the card system. The number of depositors is about 4,700 and the deposits are $1,700,000. It is the marked advantage of this card system as against the ledger books that I wish to describe.

The ledger cards are 5x7½ inches and may be ruled in any desired way. Ours contain columns for date, amount withdrawn, dividend, amount deposited and balance, in the order named. We consider this arrangement well adapted to the needs of a savings bank, showing, as it does, the balance after each deposit or withdrawal. The cards stand upright in metallic cases, each card bearing the number of the account, as in the book form, and supplied with suitable guide cards so that any particular card may be reached in a very few seconds and by taking one step from the day book. The five ledger books occupied, when all were lying open, a desk space of 20 inches in width and more than 11 feet in length. The cases containing the cards are each 19x5¼ inches and we have six in use, occupying a desk space of 33x19 inches. These six cases will serve our needs up to 5,000 accounts. It is possible that 1,000 cards might be put in each case but we prefer to have them loose enough for convenience in examining or removing.

Being the only man "on the job" and having it all my own way, I have evolved a system of handling the cards, impossible with the books, which has thus far proven, so far as we know, an infallible means of keeping the entries on the cards identical with those on the day book and general ledger, which is an important factor in arriving at a balance at the end of each term of six months. It also serves as a material aid toward correctness in the daily work, such as entries on the day book and pass books and in detecting errors, if such there be, in the daily cash balance. The method depends largely on the exercise of care, but it is





not difficult, and if faithfully followed cannot help but lead to the desired result.

The first principle is that each pass book must be compared with the corresponding ledger card every time it comes into the bank. When a deposit is made the amount is entered on the day book and the pass book, adding to the last balance on the latter. The card is taken from the case and the figures compared with the pass book, after which the pass book is returned to the customer. If there is time, the amount is posted on the ledger card immediately, keeping in mind the addition that was made on the pass book and the amount of money handled. The card is then put in a particular place on the desk and each succeeding transaction is handled in the same manner, the cards being kept in the order of the entries on the day book. When a withdrawal is to be made the amount is written on the order for the customer to sign, entered on the pass book and the ledger card is taken from the case and compared with the pass book, as in the case of a deposit. If there is time the entry is immediately made on the day book and the ledger card, the customer's order being in plain sight and compared with the two entries. The ledger card is then placed in another pile like that of the cards containing the deposits. The two lots of cards should be kept entirely to themselves and in the order of the entries on the day book. If there is not time to make the entries on the cards immediately, turn the cards on which there are deposits face downward in their stated order. Do the same with those from which withdrawals are made except that the customer's order should be placed next to the card with which it corresponds. When the time comes to post, turn the deposit cards face up and you will find that the top card is the next one to be posted, and so on through the pile. The withdrawals are handled in the same way, the order for each being with its corresponding card.

At the end of the day's work there are two lots of cards, containing the ledger account of every depositor who has done business during the day. If the cash does not balance these frequently serve as reminders of any omission or irregularity of the work.

When I post the cards I do not write the date of the transaction. After the day's work is closed (usually the next morning), I take each card in turn and put on the date with a rubber stamp. This precludes the possibility of getting a wrong date, to say nothing of the time saved over writing each one. It is in this process and that which follows that I claim the advantage of the cards over the books. It requires concentration of thought, but so does anything else in order to be correct. In dating each card look to see that there is an entry made which the date is to

supply. There may be more than one entry, in which case the date must be stamped for each.

Now, take the cards, both deposits and withdrawals, put them in one pile and take off the balances before this day's business and foot them. Then take off the balances after this day's business. From the day book take the total amount of the deposits for the day and add to the sum of the old balances. From the result subtract the total withdrawals as taken from the day book and the remainder should be the amount of the new balances. This method proves the postings from the day book to the cards and also the extensions on the cards. In other words, it keeps the cards in perpetual balance with the day book. As the day book and the general ledger are balanced at the end of each month, this is equivalent to a monthly balance between the general ledger and the depositors' ledgers, although the totals of the latter are drawn off only at the end of the half year, at which time the dividends are added.

If you have an adding machine this process of proof takes but little time and it may be shortened in this way. First take from the day book the total deposits and withdrawals. When the list of old balances is complete foot in the deposits. When all the new balances are listed, foot in the withdrawals. If the two footings are the same the work is correct. This is simply a short cut for adding the deposits to the old balances and subtracting the withdrawals to obtain the new balance. Some may prefer, especially if using a machine, to defer carrying out the extensions on the cards until after the old balances have been drawn off, so that the amounts to be copied will be the last figures on the card. The writer prefers, however, to complete the posting on the cards as soon as possible, believing that it is somewhat of a safeguard against error in transactions with the customer.

Without some kind of proof for each day's posting and extension there is hardly a chance of arriving at a balance at the end of six months. Our method of taking off the half-yearly balance is to divide the depositors' accounts into bunches of 500 or so, carry these same bunches through from time to time and prove each from its own former balance. This procedure will detect an error in extension but sometimes consumes a great deal of time to do it. It will not detect an error in posting from the day book and the only way such an error can be detected is by checking the postings of deposits and withdrawals for the whole term of six months. This is a job to which no one looks forward with joyous anticipations, and when it can be avoided by a proof such as we describe, the writer, for one, is willing to take the time to accomplish it.

To avoid posting deposits and withdrawals in the wrong place I use





black ink for the former and violet for the latter on both the day book and the depositors' ledgers. Black is on one side of the page and is added to the former balance. Violet is on the other side and is subtracted This arrangement leads the mind to connect each color with its own proper position and arithmetical process and a violation of the rule is almost sure to be discovered before it has gone far enough to make much trouble.

The ease and rapidity with which the cards may be handled make possible the method I have described. I believe there is a great advantage in having before you every account which has been touched during the day. An irregularity in the cash balance may often be suggested by reference to them.

At the end of each six months the closed accounts are taken out and filed away, leaving none but open accounts in the cases. The only objection to the cards that we have heard is that one may be mislaid or lost and—well—we might lose a ledger book, but we try to be very careful and not let such an accident happen.

I have described only the method I employ in handling depositors' accounts. I apply the same principles to other parts of the work, believing that a good system and a small expenditure of time save a great deal of hunting for errors in order to arrive at a balance.—*(Hadal.)*

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When I first came into this bank, little more than two years ago, I found that the card system had been installed several months prior thereto, but that mistakes had been made somewhere back of that date, and the cards did not balance at all with the ledger of the bank.

We worked for quite a while in a vain effort to straighten things out —took off balance after balance, and finally decided that we would have to wait until the different pass books were presented, in order to locate the error.

Eventually we adjusted the difference (a small one) by an entry from our profit and loss account, and took a fresh start.

The way in which we now keep the accounts, and which we find to work admirably, is perhaps worth adopting by some banks in the position of that one managed by "Hadal." I attach a copy of the form which we use as a "blotter," or "journal" for entering up the daily deposits and checks—and the key to the "proof" system of which I have written, lies in the keeping of 51 different slips of paper, showing the date and the amount of debits and credits, under each 100 accounts, commencing with No. 1 and ending with the even hundred in each case.

This practically brings each hundred down to a separate basis for proving purposes, and is very easily handled. With the use of an adding

machine, we are able to run off the total in about three hours, and as it only requires a few minutes' work each day to keep the changes always up to date, we are able to make the balance from the previous "trial balance" on each separate hundred, in a very short time.

Thus, if there be an error in extending any card, or if any card chance to be misfiled, or mislaid, we discover the fact at once, and do not have to go through the entire lot of cards.

There are but three of us in the management of this bank, and we are enabled to get through even the semi-annual interest period, without extra help—although it crowds too much work into the one week preceding and succeeding the payment day (January 1 and July 1) to make it advisable to continue the practice for much longer time.

Where the taking off of a trial balance used to be a dreaded matter, it now resolves itself chiefly into the giving up of one Saturday afternoon —or into a few hours' extra work on some other day—and we average probably 10 or 12 balances each year; thus keeping the bank's deposit ledger in pretty close contact with the general ledger.

CHECKING STEPS.

No. 1 to No. 100.

| Date. | Debits. | Credits |
|---|---|---|
| 1/25/07 | 500.00 | 300.00 |
| 1/28 | 350.00 | ..... |
| 1/29 | 1,000.00 | 2,700.00 |

No. 101 to No. 200.

| Date. | Debits. | Credits. |
|---|---|---|
| 1/25/07 | ..... | 215.00 |
| 1/26 | 75.00 | 16.45 |
| 1/30 | 615.00 | 355.00 |

These slips are continued on, as the different hundreds of cards are reached and passed, making us have at present, with 5,070 odd accounts, 51 slips in daily use. Some days many of them will not have any changes at all. The slips that we use are adapted from some old stationery which we had in stock—already ruled, and will allow of 100 lines to each slip—making enough space to allow of several trial balances on each one. We find it a good practice to retain the slips for one balance preceding the one immediately before the present use; so that in the event of a corresponding error in some of the hundreds, it will not necessitate writing these slips up again entirely.

In the forms above, as examples, in the first "hundred," there would be a net credit change of $1,150, so that the total of the first hundred cards at the time of the last preceding trial balance, will be just $1,150 less than the total of the same hundred at this trial balance.





RIVERSIDE SAVINGS BANK AND TRUST COMPANY
RIVERSIDE, CALIFORNIA
DAILY CASH STATEMENT

| | | | | | |
|---|---|---|---|---|---|
| To Cash Balance | | | | Deposits | |
| Deposits | | | | Deposits—Certificates of | |
| Deposits—Certificates of | | | | First National Bank, Riverside | |
| First National Bank, Riverside | | | | National Bank of Commerce, St. Louis | |
| National Bank of Commerce, St. Louis | | | | Chase National Bank, New York | |
| Chase National Bank, New York | | | | Cont. National Bank, Chicago | |
| Cont. National Bank, Chicago | | | | Los Angeles National Bank | |
| Los Angeles National Bank | | | | Loans | |
| Loans | | | | Expenses | |
| Interest, | | | | Real Estate | |
| | | | | Delinquent Taxes, Insurance, Repairs, etc. | |
| | | | | Cash, Currency | |
| | | | | Gold | |
| | | | | Silver | |
| | | | | Checks | |
| Total . . . $ | | | | Total . . . $ | |

No.....

| CHECKS | | | DEPOSITS | | |
|---|---|---|---|---|---|
| No. | NAME | | No. | NAME | |
| | | | | | |

In the second "hundred" there would be a debit change of $68.55, so that the new trial balance would show up $68.55 less than the former one.

We also find that by holding out all of the cards until the day's work is completed, and then running up the balances which show before a single change is made, and comparing with the same cards run after the changes have been made for the day's items, we are less apt to make an error in extension or in listing. The net change for the day, of course,

be it debit or credit balance, will mark the difference between the "old" balances and the "new" balances on the same run of cards.

*—(T. S. Breckenridge.)*

(221) HOW TO KEEP A DEPOSITORS' ACCOUNT IN A SAVINGS BANK.

This method can be applied by such of these banks as allow interest quarterly and credit it half yearly.

The experience of large institutions in the proving of accounts is probably much the same. First came the proof by a general trial balance of all accounts.

Then was added the proof by themselves of sections of these accounts; and again, in cases provision was made for the proof of the accounts by pages of these sections.

The method herein described carries this subdivision of proof still farther as it provides a proof of, or check each individual account. This check begins, however, only at the point where the daily postings are left by other proof. The interest postings though are taken care of by the system.

Providing this check as it does, incidental to and in combination with the necessary work of figuring the interest on the account of the depositor, the net additional work involved by the use of this method amounts practically to nothing. Indeed, it may be said that not an additional clerk nor an additional hour would be required by its adoption in an institution which does without any safety system.

"Present day writers on book-keeping when speaking of the trial balance as a 'proof,' rarely claim more for it than

1. If the entries in the posting mediums have been correctly transferred to the ledger.

2. The additions and subtractions correctly made, and

3. The balances correctly entered on trial balance, then the aggregate of both columns will be equal. On the other hand, if the amount of both columns is not equal, it is certain evidence that an error or errors have been made. In other words, the trial balance may prove the equilibrium of the ledger, but not the correctness of the posting; the ledger may balance, and yet many errors exist in the work; nevertheless equilibrium is essential to correctness."

Now it may be stated that in a savings bank, because of the monthly statement and of the daily statement demanded in these days, errors in the accounts in the general ledger, the balances of which form the debit column of the above-mentioned "two-column affair," are almost entirely eliminated, or rather, it may be said are entirely absent. In such a bank





then the work of drawing off a correct trial balance resolves itself into a proof of only the depositor's ledgers, or the credit column of "the two-column affair."

As indicated above, the mass of accounts in these ledgers is divided either by ledgers or by sections, thus dividing accounts into a number of parts each of which is proven by itself.

Knowing how much was contained in a given section at the last trial balance, account is kept day by day of what goes into it, and of what is taken out of it during a trial balance period, and at the end of the period a preliminary statement is made of the amount each section should contain. The total of all the sections must agree with the amount demanded by the general ledger as the amount due depositors.

Of the three requirements mentioned in the extracts above, the correctness of the work of two, the second and third, is aided by the system herein described.

The ledger used is the three column ledger, ruled for drafts, deposits, balance. In connection therewith are used sheets ruled as shown below.

The extensions into the balance column of the account on the ledger are made when the daily deposits and drafts are posted.

All that the system consists of, outside of the interest feature, is the periodical proof of the amount in the balance column of an account; this is effected by adding to or subtracting from the amount shown on the sheet as the balance of the account at the beginning of the quarter, the net increase or the net decrease for the quarter and then comparing the result with the amount on the ledger.

The sheets form, in a measure, a duplicate of the ledger. They are not, however, duplicate ledgers in the sense that it is required that the daily postings be entered either in bulk or otherwise on the duplicate account on the sheet. Only the net change one way or the other for the quarter is used. To the doubt which the exceeding simplicity of this device may raise as to its effectiveness, the reply may be made that an experience of nearly forty years with a method over which the present is merely a perfected form, has conclusively proven its benefit.

But helpful as these duplicate sheets have proven themselves, and will prove themselves to be where used in connection with the bound ledger, it is as an indispensable adjunct of the card ledger that they are especially valuable. Showing as they do the balance of each account at intervals of, at the most, three months, proper consideration of this circumstance and the safeguards provided is likely to remove all hesitancy as to the introduction of that latest and most radical improvement in book-keeping.

The description which follows includes all the work connected with the sheets and while it may also apply to the bound ledger it relates especially to the card ledger.

The cards are numbered and are divided into sections of approximately four thousand accounts each. They are contained in drawers holding each about one thousand cards, making four drawers to a section.

The sheets have room for twenty-eight accounts on a page; three spaces at the bottom are left blank for re-opened accounts. They are loosely bound into books, one book for each drawer.

I.

PREPARATION OF THE SHEETS. 1. From the ledger cards are copied each day on the sheets the number, name, and balance or total deposit of each new account opened the preceding day. Old accounts re-opened, before they are filed, are entered in their proper places on the sheets belonging to the same drawer when the same are copied, and on temporary sheets otherwise.

Old open accounts are copied from the ledger cards once a year, about one-half each January and July.

2. When the copying is done in January the balance shown on the ledger as due on the account after the January interest is added is entered in column 1. When the work is done in July the July balance is entered in column 8.

3. The amounts entered in column 1 are checked there and corrected on ledger as well as on sheet, by two men, one of whom calls off from the old sheet the sum of the amounts shown in columns 9 and 12 or, in the case of changed accounts, 10 and 12.

The amounts in column 8 are checked from the amounts on the old sheet in columns 2 and 5, or 3 and 5.

4. Sheets which do not need re-copying have either the one or the other half-year blank.

When the January side is blank the sum of the amounts shown in columns 9 or 10 and 12 is carried to column 1.

When the July side is blank the sum of the amounts in columns 2 or 3 and 5 is carried to column 8.

(No book-keeper need be informed that of course these additions are performed as the sums are read, namely from left to right.)

5. In these cases the amounts in columns 1 and 8 are checked there and corrected on ledger and sheet by calling the January or July balances from the ledger.

6. When, in the course of the checking mentioned in 3 and 5, in the

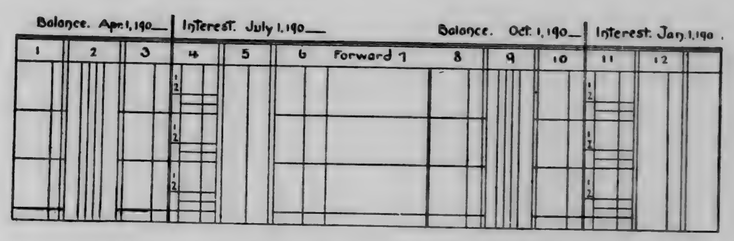




one case an account appears on the old sheet and is missing from the new and in the other case the card for an open account on the sheet is missing from its place in the ledger, it must be found amongst the closed cards and should be marked with the date of such checking and the initials of the finder.

An account appearing on the new sheet and not on the old sheet should be found on the re-opened accounts sheet mentioned in 1, and on that sheet marked with the date of the checking.

7. It is more practical in transferring the accounts from the sheets of a completed period to the new sheets of the current period to perform the work as described in 2, 3 and 6. In transferring accounts from a bound ledger to the cards, however, while the number and name are copied on the sheets from the card, the figures on the new sheet must be obtained, not from the ledger account, but from the old sheet. The whole aim and object of the sheets is defeated and their value destroyed so far as these accounts are concerned, unless this is observed. The ledgers are referred to from the sheets only to obtain the changes and to compare and correct the balances.




8. Closed account cards are placed at the end of the day in the back of the drawer to which they belong. The amount closing the account must be checked from the corresponding pass book; or, if the pass book is lacking an officer of the bank signs the statement on the card that the account was closed without the pass book.

All closed cards are kept in their respective drawers until the succeeding trial balance has been proven or until it has been gone over by the bank examiners and then they are filed in permanent storing places.

9. The amounts brought forward as described into columns 1 and 8 will remain unchanged in the case of perhaps two-thirds of their number, and as these really are the balances which will go to make up the next trial balance, it may be suggested that they at once be entered in the trial balance columns 2 and 9. It will be found, however, to be more

practical and easier to re-write a great many accounts than to erase and replace a less number.

## II.

### (222) FIGURING INTEREST AND BALANCES.

At the end of the first quarter the work of figuring the interest for the current half year, and of taking off the trial balance for the past six months is begun. One operation is made of this work.

The style of account used being that mentioned above, the balance column of the account will show the amount drawing interest for the quarter. Ordinarily this is the lowest balance shown. However, the precaution must be taken to see that this lowest balance is not followed:

1st. By a deposit made on a day from which interest is allowed.

2d. By a deposit made on the same day.

3rd. By an interest bearing transferred amount, also

4th. (Provided it is the custom of the bank), that it is not the result of a withdrawal on one of the last three days of the quarter.

In all of which cases the interest bearing amount will be larger than the lowest balance shown.

1. The interest bearing amount having been determined from the ledger is entered in column "4."

2. If the account remained unchanged during the quarter, the balance shown on the ledger on the morning of April 1st, is compared with the amount in column "1."

If they agree it is entered in column "2."

If they do not agree, whatever error is thus discovered is corrected and the correct amount is entered in column "2."

3. In changed accounts the net addition or the net deduction for the quarter is ascertained from the figures in the "drafts" and in the "deposits" columns, entered under the amount in column "1," or added or deducted as the case may be, and the result at once entered in column "2."

This result is compared with the balance shown on the ledger, and any discrepancy is thus discovered and corrected.

4. A ledger card shown by the sheet to be missing, must be found among the closed accounts. The footing should be proven, and the card marked with the date with the initials of the person doing the work. The space on the sheet is likewise marked.

5. It should be mentioned here that the same clerk is never assigned in a given quarter to do the work on a drawer which he worked the preceding quarter.





6. Two men check the balances, calling from the ledger cards to the sheets.

7. Column "2" is then footed.

If it is desired to use an arithmometer 6 and 7 may be changed to read as follows:

Two men re-list, foot, and check the balances shown by the depressed keys, as it is taken from the ledger card by the operator.

The total of the left hand page is at once entered at its foot on the sheet, and the total of each of two open pages at the foot of the right hand page.

These totals are verified by another clerk footing without the machine. Errors made in the listing operation and the resultant incorrect footings thus will be discovered and corrected.

The right hand footings are then summarized for each book.

8. The total of the four books in a section must agree with the total for the section called for by the preliminary statement.

The total of all the sections is the amount due depositors.

9. It may be remarked here that the list of balances which the adding machine prints while footing the columns of the sheets, forms a neat and condensed copy of the figures of the trial balance contained in columns 2 and 9.

The figures in these columns must be considered the more important, and as making up the real trial balance because it is they which are controlled by the preceding trial balance figures and will in turn control the succeeding trial balance figures.

The machine aids primarily towards accuracy in footing and the copy made, subsequently can be used, if desired, by the auditing committee or by the examiners of the bank department.

10. One man corrects the interest bearing amount.

In the fore part of June the interest bearing amount for the second quarter is ascertained for each account.

11. If this amount is the same for both quarters the figures for the first quarter, which already have the single check mark, are double checked.

12. If the interest bearing amount for the second quarter differs from that for the first quarter, it is entered under the latter.

13. If the account is changed in the second quarter the net increase or decrease is entered in column "3," added or deducted, as the case may be, and comparison made with the balance shown on the ledger.

14. As withdrawals subsequently are made these second quarter

balance and interest figures are changed, as they also are if interest bearing deposits are made.

Ordinary deposits require only that the balance be changed, column "3."

15. One man corrects the work, but, to save time, only that pertaining to the interest bearing amount for the second quarter,—not the balance amount.

16. The sheets are then gone through to add and divide such interest bearing amounts which differ for the two quarters, for the purpose of averaging them.

17. This work is then proven and checked.

18. From the interest table, if the rate is such that one is required, the interest each amount is entitled to is carried into column "5," the interest column.

19. This work is proven and checked.

20. On the last three days of the half year the interest is posted in red ink to the individual accounts.

21. These postings are proved and checked.

22. The interest column "5" is then footed.

The second half year's work is a repetition in columns 8 to 12 of that of the first in columns 1 to 5 as described above.

## III.

From the preceding it will be seen that the sheets form in a way a continuous trial balance, the figures on the sheets proving those on the ledger, and those on the ledger proving those on the sheets. In other words, six times a year we test or try the balance of each account on the ledger by the balance of the same account on the trial balance sheet; and two of these tests carried to proof form the semi-annual trial balances.

The ordinary trial balance when it fortunately fails to come out right simply points out that there is an error. It does not of itself discover the error, but compels the going over of the work again, which results many times in the discovery not of one error only, but perhaps of a number of them. When the totals of the two columns do agree and the trial balance is called correct, it is a collection of accounts which apparently has been proven. Errors which may occur within this collection offsetting each other are not discovered; each individual account does not obtain its own proof.

It should be recognized that there are two classes of errors to be discovered in getting out the ordinary trial balance. The greater number of these errors are those involved in the work of making up the trial





balance itself, and these have first to be eliminated before the work is begun of looking for the more remote and vital errors, affecting the individual accounts, the detection and correction of which is the sole purpose of the trial balance.

The system herein described discovers errors of both classes in the process of the original work, and leaves but few to be looked for when the total footing points out that all have not been found. Counterbalancing errors are next to impossible.

It is also evident that the duplicate sheets are efficacious as a safeguard in connection with the loose cards.

Besides the records furnished by the index and the signature cards which are of value only to serve on occasion, the one to find the other to identify, from the time an account is opened two other simultaneous records are started which run parallel and continuous during the life of the account.

While the record of an account on the sheets is subordinate to and dependent upon that on the card, it serves as a guard to this principal record and prevents its possible entire loss.

A study of the routine prescribed in I—1, 6 and 8, and in II.—4 will show that an account once opened must remain continually in evidence until closed. The comparison of the account on the sheet with that on the card prevents the abstraction and substitution of cards, while the fact of an account appearing on the sheets and missing from its place in the ledger, must and will be accounted for by the result of the search or investigation which such a discovery would call for. The use of the sheets insures the early discovery of anything out of the proper and orderly run of the work, and it certainly renders the use of the card ledger as safe as that of the ordinary bound ledger.

## IV.

It remains to be shown that the extra time and work required by the use of the sheets are so little as not to be an objection.

A comparison of the work required when sheets are used and when they are not used in getting out the interest and the trial balance, exclusive of the ordinary postings and extensions, is here given. When sheets are not used the interest figures are entered on the ledger card in a side column.

| | | |
|---|---|---|
| 1. | Add the half-yearly interest on the ledger to each account.. | 1 man |
| 2. | Correct the addition in "I" ..... | 1 man |
| 3. | Call off balance from the ledger to machine operator..... | 2 men |
| 4. | Correct balance shown by "3"..... | 2 men |
| 5. | Figure interest, for first quarter ..... | 1 man |

| | | |
|---|---|---|
| 6. | Correct interest for first quarter | 1 man |
| 7. | Figure interest for second quarter | 1 man |
| 8. | Correct interest for second quarter | 1 man |
| 9. | Add and divide | 1 man |
| 10. | Correct average shown by "9" | 1 man |
| 11. | Set down interest from table | 1 man |
| 12. | Correct interest from table | 1 man |
| 13. | Post interest in red ink | 1 man |
| 14. | Call off from pencil figures to machine operator | 2 men |
| 15. | Correct "14" and "13" by calling from machine list to red ink posting | 2 men |
| | | 19 men |

The following is a summary of the work done when sheets are used as described in I. and II.

| | | |
|---|---|---|
| 1. | All the half-yearly interest on the ledger to each account | 1 man |
| 2. | Copy name and balance from the ledger when newly copied once a year; carry forward the balance the other half year | 1 man |
| 3. | Correct above balance as well on ledger as on sheet; in first case by calling from old sheet (adding mentally); in second case by calling from ledger | 2 men |
| 4. | In one operation figure interest and balance | 1 man |
| 5. | Check, foot, and relist balance shown in "4" | 2 men |
| 6. | Verify "5" without the adding machine | 1 man |
| 7. | Correct interest shown in "4" | 1 man |
| 8. | In one operation figure interest second quarter and show balance | 1 man |
| 9. | Correct interest shown in "8" | 1 man |
| 10. | Add and divide | 1 man |
| 11. | Correct average shown by "10" | 1 man |
| 12. | Enter interest from table | 1 man |
| 13. | Correct interest from table | 1 man |
| 14. | Post interest in red ink | 1 man. |
| 15. | Check interest posting | 2 men |
| 16. | Foot interest on sheets | 1 man |
| 17. | Correct interest footings of "16" | 1 man |
| | | 20 men |

The copying in a large institution each six months of one-half the accounts appears, at first glance, to be a formidable job. But, the last name only being copied, actual test shows that 250 may be taken as an average number of accounts which can be copied in one hour when name and balance are newly copied; while 500 may be taken as an average number of accounts per hour on which the balances can be extended on the old sheets.

On a basis of 40,000 open accounts:

20,000÷250=80—the number of hours required to complete the newly copied sheets each half year.
20,000÷500=40—the number of hours required to extend the balances on the old sheets. This makes a total of 120 hours.

Two men checking and correcting the balances should do it in say one-half the time required to do the original work.





120÷2=60 hours for two men, equivalent to 120 single hours.

120+120=240. A total of 240 hours, therefore, is all that is required at the beginning of each half year to obtain the advantages which the use of the sheets afford. The greater part of this original work can be entrusted to the junior or less experienced clerks while the responsible part of the correcting work can be done by the more reliable clerks, the junior clerks assisting. While the time of 240 hours is thus charged against the sheets it must be remembered to credit them with the time saved in the elimination of the work of correcting on each individual ledger account the addition of the half-yearly interest to the preceding balance, as well as with that saved in the elimination of a second correction of the posting extensions.

When no sheets are used, with 40,000 accounts, in order to find, say, 300 errors possibly made in that work, 39,700 accounts are proven which require no proof. This wasteful, unprofitable work is all saved with the sheets as the errors made are found by comparing the ledger figures with the sheet figures and this incidental to the necessary work of figuring interest and getting out the trial balance.

That errors are found in this way with greater certainty than by a simple going over of the work a second time everyday experience teaches. Who that has had long experience with accounts has not come instinctively to seek to lay out the routine of any new line of work with which he may be brought into contact in such a way as will bring about the automatic detection of the errors he may make in his own work? Such an one has learned to avoid when possible going over the same operation twice and after obtaining his result checks it by a different process.

He recognizes in the method here described simply an automatic check on a large scale and will agree as to the superiority of a method of correction which calls for the comparison of like results arrived at by two different roads over that which requires that the seeker for errors shall follow the same road taken by the maker of them. Every error detected means the saving of so much time later on and the number of errors automatically found during the progress of the work as described helps towards justifying the claim that the net addition of time and labor required by the use of the sheets is so inconsiderable as not to be thought of as an objection.

It is possible that what has been here written may demonstrate to the satisfaction of some, as experience with them has demonstrated to that of the writer, that the simple expedient of the duplicate sheets assures on the ledger. And if, as is believed, it is shown that the sheets also the correctness of the accounts onward from the posting of the amounts

remove some objections to the use of the card ledger, a service may have been rendered to others, who, convinced of the advantages connected therewith yet were reluctant because of such objections, to adopt that improvement.

### (223) THE ACCOUNTS OF AN INVESTMENT BANKER.

It is the intent of this article to show the simple and efficient method which I have used in an investment banker's office; and in using this term it is strictly such and does not include accounts as used by stock brokers who handle margin accounts as speculators.

The cash book and ledger are the important books with the stock and bond register making up the complete set. A day book is very seldom used, although some transactions are made that require entries to be made in it.

STOCK AND BOND REGISTER

LEFT HAND PAGE

| DATE | FROM | TO | SECURITY | NO. OF SHARES | PRICE | COM. | REMARKS |
|---|---|---|---|---|---|---|---|
| Nov 7 | Mc. Mahon & Way | M B. Brown | U.S. Steel Pfd. | 100 | 83 | 1/8 | |
| " 8 | M.B. Brown | Whitney Storm. Co | Mon RC. Bonds | $5000 | 102 | 1/4 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

STOCK & BOND REGISTER — Right Hand Page

| RECEIPTS | | | | DISPOSAL | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| Date | Cert. No | No of Shrs | In Name of | Date | Cert. No | No of Shrs | In Name of | |
| Nov. 8 | — | 100 | On Credit Union Trust Co. | Nov. 8 | 51712 | 100 | M. B. Brown | Sent by Express |
| " 9 | 8155 to 8158 inc | $8000 | Not Registered | 9 | 8155 to 8169 inc | $8000 | Not Registered | Delivered by Hand |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

To give a complete outline of our many transactions, I will illustrate it as follows: Mr. Brown gives us an order to buy 100 shares of U. S. Steel Corp. at 83, which order we execute on our stock exchange at his price (being quoted at that when the order is received), having bought it





from another member of the stock exchange. It is reported over our private telephone from the exchange to our office and entered in the stock and bond register as per Form 1: This stock is usually deliverable the next day, for which a check (certified) is given the broker from whom purchased and he almost always leaves the stock at the transfer office "to our credit" (bonds are not transferred as stock), and we make up our transfer slips, giving names and addresses of persons to whom the stock is to be issued, and in due time we call for our stock and make record in the stock and bond register of all data. Of course, in case of a sale this operation is reversed, but all the details are the same.

CASH BOOK

LEFT HAND PAGE

| | FOLIO | | | | | | COM. | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Nov 8 | | M B Brown | Received on him for | U.S. Steel Pfd | 100 | 83 | 12 | 50 | 8300 | 00 |
| Nov 10 | | M B Brown | Recd of Whitney Co for | Mon RC Bonds | $5000 | 102 | 20 | 00 | 5140 | 00 |
| " " | | | " " him for | Bal. U.S. Steel Pfd | 100 | 83 | 12 | 50 | 100 | 00 |

CASH BOOK

RIGHT HAND PAGE

| | FOLIO | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Nov 8 | | M B Brown | Paid Mc Mahon & Way | for U.S. Steel Pfd | 100 | 83 | 8300 | 00 |
| Nov 9 | | M B. Brown | Paid Scully Pfd B | for U.S. Steel Pfd | 100 | 83 | 8300 | 00 |

Our check for $8,300 in payment for above stock is entered in our cash book as a debit against Mr. Brown, as shown in Form 2 and as Mr. Brown has received our statement for this amount plus 1/8 per cent commission, or $12.50, he gives us his check for $8,312.50; it being entered in our cash book in two columns; the $12.50 in the commission column (the total of this column being credited to commission account once a month), and the $8,300 amount to the credit of Mr. Brown's account.

Our ledger (Form 3), which always gives full information regarding all purchases and sales of stock, is a source of quick information regarding any transaction made for any of our customers, in case they should ask

about any particular stock order which we may have executed for them.

We, of course, purchase and sell stocks for our own account but they are handled the same way, only that we debit and credit (as the case may be) the stock account for each stock or bond.

It sometimes happens that we have an order from a customer to sell

LEDGER

M. B. Brown

| Nov. | 8 | Cash | 23 | U. S. Steel Corp. Pfd. | 100 | 83 | 8300 | 00 | 8300 | 00 | Nov. | 8 | Cash | 23 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | 9 | - | - | - - - - - - | 100 | 83 | 8300 | 00 | 8140 | 00 | - | 10 | - | - | Mog. R.C.C.C. Bal. | 8000 | 102 |
| | | | | | | | | | 160 | 00 | - | - | - | - | | | |

PURCHASES: Name of Security always on Debit side

SALES: Name of Security always on Credit side

a certain stock or bond and purchase another, and it is almost always that there is a balance one way or the other, and as there are two charges for commission in a transaction of this kind, this necessitates a cross entry on our cash book; for example, should Mr. Brown have given us an order to sell $8,000 (par) worth of bonds at 102, the sale would bring $8,160, against which there would be our charge of ¼ per cent commission, or $20; and when check for $8,160 would be received from the broker to whom the bonds were sold, this would be credited on the cash book as $20 in commission column and $8,140 to the credit of Mr. Brown and he would then owe a balance of $172.50, which he would be credited with as $160 and the $12.50 being credited to commission (this being commission on the 100 shares of U. S. Steel bought). This, therefore, shows that the two credits to Mr. Brown of $8,140 and $160 would equal the debit of $8,300 for his purchase.

In case of the balance being in his favor on a different transaction, a cross entry would be made for commission in the cash book; that is, Mr. Brown would be charged with $12.50 on the credit side of cash and commission being credited on the debit side (this being a balance entry).

*(Edward G. Straub.)*

### (224) BANK PASS BOOK.

This is a copy of account in which is recorded by the bank, for the customers' use, the amount of customers' deposits and checks withdrawn, also exchange on collections, discounts, etc. In auditing the books of account





of the depositor, the bank pass book is considered a sufficient voucher for the amount of the balance at bank called for by the cash book after having been certified by the bank officials.

Many banks now use the pass book simply as a receipt for the deposits made, giving the depositor a separate sheet on which is a statement of all his transactions in full. These statement sheets are written up daily, and when a depositor leaves his book for balancing, it only requires a comparison of the total deposits entered in the pass book with those entered on the statement and ledger, and if they agree the rest is simply a deduction of the total charges from the total of the deposits, including the previous balance, which leaves the balance due the depositor. Keeping these account current sheets written up-to-date enables a bank without difficulty to have every pass book ready for delivery to the depositor the morning following the day it was left.

### (225) COMPARATIVE BANK STATEMENTS.

The following plan of resolving the amounts of the various constituent items of bank balance sheets into percentages is graphic, instructive, and efficient. These statements are made up from statistics published in the Britsih Journal of the Institution of Bankers.

This method admits of very close dissection as to proportion of capital to advances to customers, whether demand loans or on real estate or other property.

BANK BALANCE SHEETS.

Liabilities.

| | Percentages. |
|---|---|
| Capital | 9.73 |
| Reserve fund | 8.28 |
| Due on deposit, current and other accounts | 81.99 |
| | 100.00 |

Assets.

| | |
|---|---|
| Bills of exchange and promissory notes | 12.67 |
| Cash in hand, at bank of England, and at agents | 8.38 |
| Consols and other imperial Govt. stocks, Colonial and Indian Govt. bonds, etc. | 14.90 |
| Freehold properties | .58 |
| Bank premises, head office and branches, furniture, etc | 3.77 |
| Loans on security and advances on current and other accounts | 59.70 |
| | 100.00 |

No. 2.

| | | | |
|---|---|---|---|
| | Capital subscribed | 54.6 | |
| Dr. | Reserve Fund | 8.03 | Cr. |

Liabilities.

Capital, 56.2; Subscribed capital, 54.6.

| | |
|---|---|
| Paid-up capital | 16.38 |

| | |
|---|---|
| Reserve fund | 8.03 |
| Own notes in circulation | .56 |
| Deposits and credit balances | 72.89 |
| Rebate of discount on bills | .09 |
| Acceptances on Account of customers | .82 |
| Profit and loss | 1.23 |
| | 100.00 |

Assets.

| | |
|---|---|
| Cash on hand and with London and other bankers | 8.99 |
| Bills of exchange on hand | 12.00 |
| Investments | 10.23 |
| Freehold and leasehold properties | 1.05 |
| Special mortgages and loans on securities | 10.57 |
| Advances on current accounts | 55.51 |
| Acceptances as per contra | .82 |
| Bank premises | .83 |
| | 100.00 |

PROFIT AND LOSS ACCOUNT.

| Dr. (In terms of the above.) | Cr. |
|---|---|
| Interim dividend | .96 |
| Interim dividend | .96 |
| Payment of income-tax | .09 |
| Surplus to the credit of profit and loss for 1906 | .19 |
| | 2.20 |
| Surplus from 1904 | .14 |
| Net profit for 1905 | 2.06 |
| | 2.20 |

Dr. No. 3. Cr.

Liabilities.

| | |
|---|---|
| Capital | 15.66 |
| Reserve fund | 5.48 |
| Notes in circulation | 13 |
| Unpaid dividends | |
| Credit balances, deposits, and on bills re-discounted | 77.20 |
| Rebate on bills and interest on deposits | .47 |
| Profit and loss account | 1.06 |
| | 100.00 |

Assets.

| | |
|---|---|
| Cash on hand and at call | 11.69 |
| Bills discounted, including re-discounts | 9.18 |
| Consols and other investments | 5.66 |
| Advances on current accounts | 71.51 |
| Bank property | 1.96 |
| | 100.00 |

No. 4.

| Dr. Nominal Capital 34.3. Subscribed 19.6. | Cr. |
|---|---|
| Capital paid-up | 9.80 |
| Reserve fund | 4.90 |
| Deposits, credit balances, drafts and other liabilities | 80.81 |
| Rebate on bills and interest accrued on deposits | .52 |
| Notes in circulation | .23 |





| | |
|---|---|
| Acceptances on account of customers | 2.95 |
| Balance of profit and loss account | .79 |
| | 100.00 |
| Cash in hand, at Bank of England, and other banks and at call | 8.08 |
| Investments in consols, colonial bonds and other securities | 12.00 |
| Freehold properties yielding rents | 1.71 |
| Bills discounted, advances on current accounts, loans, etc | 73.79 |
| Bank premises, fittings, etc | 1.47 |
| Stamps | |
| Liability of customers for acceptances as per contra | 2.95 |
| | 100.00 |

No. 5.

| | | |
|---|---|---|
| | Capital subscribed | 49.50 |
| Dr. | Reserve fund | 2.48 |
| | | 51.98 |

Liabilities.

| | |
|---|---|
| Capital paid-up | 7.67 |
| Reserve fund | 2.48 |
| Deposits and current accounts | 79.10 |
| Acceptances and guarantees | 8.83 |
| Liabilities by indorsement on foreign bills sold | .04 |
| Other liabilities, being interest due on deposits, unclaimed dividends, etc. | 1.00 |
| Rebate on bills not due | .06 |
| Profit and loss | .82 |
| | 100.00 |

Assets.

| | |
|---|---|
| Cash in hand | 6.55 |
| At Bank of England | 6.65 |
| Money at call and at short notice | 15.34 |
| Investments | 13.73 |
| Bills discounted, 3 months and under | 10.33 |
| Exceeding 3 months | 1.44 |
| Loans and advances | 34.00 |
| Liabilities of customers on acceptances and guarantees as per contra | 8.83 |
| Liabilities of customers for indorsements as per contra | .04 |
| Bank premises, chiefly freehold | 2.76 |
| Other assets, being interest due on investments | .33 |
| | 100.00 |

It will be seen that the proportion of the capital,including in this reserve fund—to the liabilities to the public, that is, to the deposits, varies considerably.

In Balance Sheet No. 1 it is 18 per cent.
In Balance Sheet No. 2 it is 24 per cent.
In Balance Sheet No. 3 it is 21 per cent.
In Balance Sheet No. 4 it is 14 per cent.
In Balance Sheet No. 5 it is 10 per cent.

### (226) BILLS RECEIVABLE, RECORD OF.

The notes when received are entered on the left hand page, all necessary data being given, at the end of the day the amounts are footed and

carried to the total column from which it is posted to the general ledger. As payments are made during the day they are entered in the columns headed "payments on notes," the date, number and amount being given, at the end of the day these are footed up and carried to the total column, which amount is then posted to the general ledger. The interest amounts are entered in the same way.

At the end of the day, or once a week, or month, as desired, the amounts under payments on notes are checked and the amount carried to the indorsement column corresponding to the note on which payment was made, if the note is paid in full or when the indorsements complete the full payment the amount should be entered in the total column and

Bills Receivable Record.

| Date Recd | Maker | Ind. Col or Sec | No | ✓ | Amt. | Total | Date of Bill | Due Date | Endorsements | | | | Payments on Notes | | | | | Interest Payments | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Date | Amt. | Total | Remarks | Date | No | ✓ | Amt. | Total | No. | Amt. | Total |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | |

the note should be checked, so that in glancing down the page you can readily see what notes are still unpaid.

The totals should be carried forward and the difference between the footings of amount of the notes and the footings of payments on notes should equal the amount of bills shown by the general ledger, when the notes on one page have all been paid and checked the footings of the total indorsements should agree with the totals of the notes on same page, making a complete and double check on the work. If desired the book can be ruled up each night, but in many instances there are certain times during the year where notes are received and no payments made, the payments coming at a later date, consequently it would waste a great deal of the book. There being a date column on each page it would not be necessary to rule at all. If this is done the numbers could be printed in and each line used without any waste whatever.—*(J. E. Dresken.)*

### (227) CLEARING HOUSE SETTLEMENTS.

The clearing house is the fruit of progressive and extended banking; in the reciprocal workings of banks, railway companies and other institutions, no improvement has been of a greater and more convenient practical utility than the clearing house. Here the various cross-demands are adjusted and differences only dealt with.





The first clearing-house was established in London in 1775; the second institution of a similar character was established in New York about 1853.

Suppose five banks meet to exchange checks and settle the balance of indebtedness by each bank to all the others or to each bank by all the others. These settlements are effected by a very simple arithmetical operation.

Let the figures in the table below represent thousands and the settlements are worked out as follows:

| | Present Cheques and Demand Payment. | | | | | | Totals demanded from each bank. | Less Contra | Balances adverse. |
|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | | | | |
| On A..... | 0 | 3 | 5 | 6 | 7 | = | 21 | 0 | 0 |
| On B..... | 4 | 0 | 11 | 12 | 5 | = | 32 | 19 | 13 |
| On C..... | 18 | 5 | 0 | 13 | 11 | = | 47 | 36 | 11 |
| On D..... | 1 | 2 | 13 | 0 | 15 | = | 31 | 0 | 0 |
| On E..... | 10 | 9 | 7 | 11 | 0 | = | 37 | 0 | 0 |
| Totals demanded by each bank | 33 | 19 | 36 | 42 | 38 | | | | |
| Less Contra..... | 21 | 0 | 0 | 31 | 37 | | | | |
| Balances in favor.... | 12 | | | 11 | 1 | | = | | 24 |

| | | |
|---|---|---|
| Bank A receives | $12.000 | |
| Bank D receives | 11,000 | |
| Bank E receives | 1,000 | $24,000 |
| Bank B pays | $13,000 | |
| Bank C pays | 11,000 | $24,000 |

and all claims are satisfied and all responsibilities canceled by these five checks.

If in this instance, each bank would settle with each of the other banks separately, 20 distinct entries would be necessary by permutation, viz.: 5—1=4 and 5×4=20.—*(Gustave Jacobsson, B. A.)*

### (228) EXPIRATION OF INSURANCE ON COLLATERAL.

These are also sometimes recorded by cards, which, in this case, are arranged in order of date (see paragraph 246). In front of the index cards, representing the proper days, are filed the record cards, representing property, policies, or collateral. As these cards are consulted day by day, there is no possibility of error.

### (229) CORRESPONDENTS' ACCOUNTS.

Accounts with correspondents should be checked off and proved monthly, and a reconcilement book kept in which should be noted all the items of difference. It is advisable that the reconciling of these accounts

should be done by some other clerk than the book-keeper, wherever possible.

### (230) CREDIT DEPARTMENT.

That the modern, up-to-date bank, doing a commercial business, should have a thoroughly organized and completely equipped credit department would seem to any systematic business man to be a most essential feature, as a safeguard for the loaning of the funds entrusted to a bank by its depositors, and yet, with comparatively few exceptions, the establishment of the credit department is of recent years and has been the result of costly experience.

Formerly what information of a credit nature a bank possessed was generally stowed away in the brain of its executive officer, or consisted of agency reports filed away in a more or less unsystematic manner, so that loans were not infrequently made upon mere hearsay, or upon the judgment of some disinterested party whose advice was often surmise. There was no attempt to systematically and periodically collect and dissect credit information and to so file it that it would be immediately available for the bank's officers and loan committee.

With the enormous growth of our cities, the immense expansion of our commerce, and the constant increase in the number of our merchants and manufacturers, brokers and contractors, capitalists and professional men, and the constant addition to the list of country banks, the necessity of a thoroughly equipped credit department in charge of a capable officer, well posted in the duties of a credit man, has been most emphatically felt. Today, therefore, the maintenance of this department, in a more or less efficient degree, is becoming the rule rather than the exception.

It goes without saying that the president or cashier of a large bank, with his multitudinous duties and the constant demand on his time, cannot take charge of the credit department. It is usually placed under the management of a junior officer or credit man of practical business experience, preferably one who has been through the mill in his own bank, and who is, therefore, familiar with the bank's customers, both individual and bank depositors.

He should be a man of ability, of unquestioned integrity, of wide acquaintance in the business and social world, of good judgment, keen insight into character, unprejudiced by personal likes or dislikes, and who has the necessary persistency and liking for investigation. He, of course, should have a thorough knowledge of accounting and banking—in fact, it is quite necessary for him to have been at some time an accountant and a discount clerk. He should, above all, possess the faculty to absorb





information of a credit nature, and to say little. What he learns of his customers' conditions and affairs comes to him in confidence and should be strictly so treated by him.

The credit man should carefully read the financial pages of the morning papers, noting business conditions in general and the daily quotations of stocks, bonds and grain, which form a large part of the collateral upon which a bank loans its funds. The trade and legal papers should be perused and items of judgments, assignments, petitions in bankruptcy, mortgages, etc., noted, particularly when any of the parties are on paper owned by the bank.

He should critically examine the loans maturing in the near future, that a renewal of a loan may be refused and the customer notified in advance in case of any evidence of weakness or unsatisfactory conditions which his investigations may have brought to light.

A detailed memorandum of the paper maturing each day should be prepared, showing the maker, indorser or collateral, the amount due and whether it has already been renewed. A copy of this should be given each officer for reference and the original, used by the discount clerk or teller, can be footed at the end of the day and passed to the general book-keeper as a credit for "Home Bills Discounted."

Reports of the commercial agencies should be procured from time to time, covering the financial standing of firms who keep accounts with the bank, whether borrowers or not, and these should be filed, together with all other information regarding such firms, in a systematic manner, that they may be at the service of the bank's officers at a moment's notice. The credit man should carefully peruse these reports and thoroughly post himself as to his customers' ratings and general business reputation. On out of town paper the opinions of bankers and mercantile houses with whom the borrower does business should be sought and filed for reference.

The average monthly balance book should be studied, for in extending a line of credit to a bank's customers, not only the responsibility of the borrower but the average balance kept should enter into the consideration of the extent of the credit granted.

The credit man should, at least once a year, obtain a detailed statement from each of the bank's borrowers properly signed by an officer or member of the firm. These statements should be carefully analyzed and compared with the previous statement on file, and any unfavorable change in the condition at once investigated.

To ascertain the maximum line of credit a bank should extend to a customer, the credit man should consider only the quick assets, eliminating from the statement such assets as patents, good-will, contracts,

advertising and a large percentage of machinery and fixtures. In addition to the cash on hand and in bank, he should estimate what proportion of the accounts and bills receivable are good and what the machinery, merchandise, furniture and fixtures would bring at a forced sale, deducting from these assets all accounts and bills payable and other liabilities. Many other considerations, of course, enter into the decision of what proportion of the net assets a bank may safely loan to the applicant for credit in determining his line. For instance, his standing in the community as a business man, and whether he has ever failed. If so, under what circumstances and what settlement was made with his creditors. His private life and habits should also have some bearing. A man's character and reputation for integrity are most valuable assets when seeking credit.

To quote Mr. Cannon, of the Fourth National Bank, New York:

"The component parts of credit are character, capacity and capital, but the greatest of these is character. Character counts continually for credit."

And as Rev. Wm. Carter, of Kansas City, said in a recent address before credit men:

"Conscience makes character, character makes confidence, confidence makes credit, credit makes business, and business makes the world."

The discounts of a commercial bank, as you all know, are of three kinds:

(1) Commercial or business paper, given by the purchaser of merchandise to the jobber or manufacturer, and considered the most desirable paper for banks, on account of the double liability of maker and indorser, the short time to run (generally sixty or ninety days), and as a rule the small amount of the notes.

The credit department should ascertain that the commercial paper is genuine, i. e., actually given in payment of merchandise bought (not straw or manufactured); that it is negotiable; that the makers have a fair rating and should not depend entirely on the indorsement of the bank's customer.

(2) Accommodation paper, notes made by a firm or corporation, sometimes indorsed but frequently no other liability than that of the maker. This form of paper has largely increased in later years, due to the scarcity of bills receivable, manufacturers and jobbers carrying their customers in open accounts instead of taking their notes.

Accommodation paper should be taken from those only who have filed a detailed statement and whose responsibility has been established by a careful analysis of same. Banks should insist that at least once a year a customer's paper should be paid in full or materially reduced,





that the bank may "see the color of its money." A steady line of credit furnished by a bank is nothing more than furnishing capital to the firm, which is not the business of a bank, but to loan money to buy merchandise to be manufactured into goods and sold.

(3) Collateral loans, notes signed by an individual or firm and secured by the assignment of stock, bonds, mortgages, or such grain as wheat, corn and beans, or other unperishable produce, which have an active market value and are represented by elevator or warehouse receipts and secured by insurance policies.

Collateral loans should be carefully watched to see that margins do not run out. In a continually declining stock market such as we have had for the past year, this is a peculiarly trying time to the credit man, who must be prepared to call on his customer for additional margin or more collateral before his margin is exhausted. If the borrower fails to respond, he should sell his collateral at the point it expires, as frequently the borrower has no responsibility beyond the amount of collateral hypothecated with the bank.

He should see that the merchandise in warehouses or elevators is kept fully insured and that the bank's interest appears in the policy. He must also keep posted on the daily fluctuations of this kind of collateral.

This is a valuable record, showing at a glance the items of interest regarding a borrower which a credit man should know: the average balance maintained and the maximum loan for the previous year, the net worth as shown by his statement and the commercial agency ratings. It also shows the partners, or officers and directors, and any information of a credit nature, the line of credit granted, and the arrangement entered into between the bank and its customer. These data should be carefully compiled once a year and the results compared with the previous year. The comparison is often startling, not only for the bank but to the customer himself. Any unfavorable developments should at once be taken up with the latter, who will generally be grateful for calling attention to the fact and for any advice which a bank officer may have to suggest.

Many different systems are in use, but a convenient one is to place all information relating to the customer's credit standing, such as his statements. The commercial agency reports, the opinions of other banks or mercantile houses, the history of the account, etc., in a manilla folder. The name of the customer should be typewritten across the top of the folder and the latter filed alphabetically in drawers in a neat and compact file case, conveniently located for the immediate use of the credit man. In this way he can place instantly before the president or loan committee

all information collected regarding the credit standing and account of the customer under consideration.

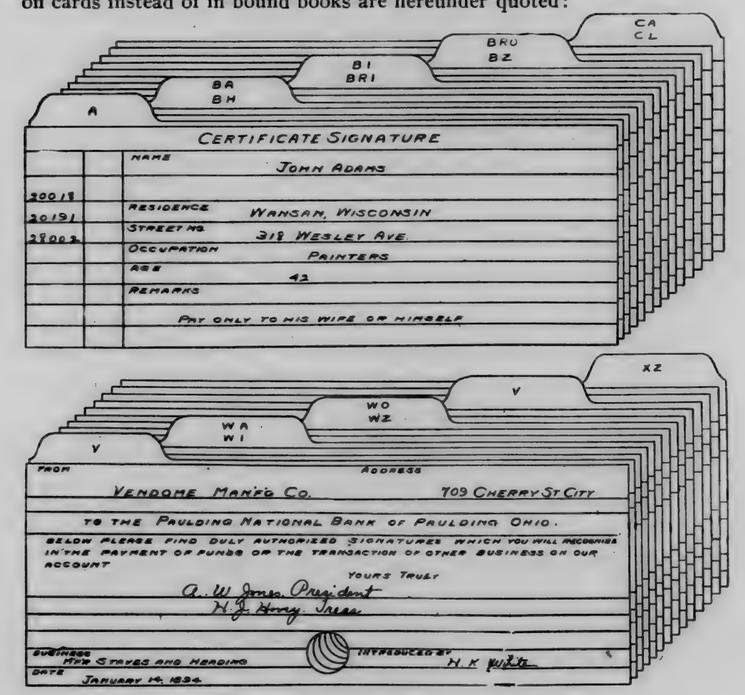
This is but a brief outline of the duties of the credit man and the methods employed in a department which has proven itself to be of the most valuable character to a successful bank.—*(H. H. Sanger.)*

### (231) CREDIT REPORTS.

The value of an accurate record of the worth and credit of actual and possible customers properly indexed, must be of considerable value to the banker. A great many banks now use a system of cards for this purpose. In case of removals, failures, deaths or retirements, the cards representing the concerns affected are removed, thus freeing the record from useless matter.

### (232) CUSTOMERS' SIGNATURES.

Some of the advantages of keeping records of customers' signatures on cards instead of in bound books are hereunder quoted:








"The system has many features of advantage germane to the banker. Principal among these is the ease with which useless and out-of-date signatures may be instantly removed. The list is always up-to-date, and it is as easy to find the signature of a depositor who opened an account thirty years ago as it is to find the signature of a day's standing.

"Information pertaining to any customer represented by a card may be much more complete than the similar record in a book, and special information for the teller or cashier only can be kept on the card that could not be put in a book that must be handed to customers indiscriminately to receive their signatures.

"The card system is permanent, and no matter how long the bank continues in business, it never has to be rewritten or renewed. With books, the signature of a customer who is an invalid or a non-resident must be obtained on a slip of paper and pasted in the book, which soon becomes unwieldy and clumsy. With the card system, it is very simple to secure signatures through the mail by forwarding the cards.

"If the teller should be suspicious that certain signatures are apt to be forged, or should feel that his unfamiliarity with certain signatures might render a close comparison necessary, the cards bearing these signatures can be removed from the file and kept in a convenient place for instant and unobserved comparison.

"Banks have often been inconvenienced by the necessity of introducing a certain signature in evidence, as the entire book would have to be produced or mutilated. With the card system, only the card involved is removed from the file.

"The card system is very simple in operation. Cards of different colors are ordinarily used to distinguish between the commercial and savings depositors, holders of certificates and subscribers to the safety deposit vaults. These cards are usually printed with a different form for each purpose.

"For the commercial department the card is very simple. Besides the space allowed for the signature, it provides sufficient room for other data which may be filled in by the customer or by the teller. When firms or corporations open an account, the authority of the directors or of the individuals comprising the firm for the acceptance of certain signatures of individuals authorized to sign checks and other financial obligations is shown with the signatures to be recognized, and the official titles, if any. Further particulars, such as the addresses of the depositors, dates of opening accounts, names of persons introducing the depositors to the bank officials, the number of accounts, etc., are usually added.

"In the savings department the printed form usually provides for more detailed items of identification.

"With the exception of the cards for the savings department, the index is usually alphabetical. In the savings department the cards are arranged numerically, and guide cards at intervals of twenty-five or fifty are aids in the rapid finding of any card desired.

"The cards are withdrawn from the file when the account is closed and either filed away with the pass book or in an auxiliary index, where they can be referred to with as little inconvenience as in the regular index. The closed pass books of each day show what cards should be removed."

### (233) DRAFTS, CERTIFICATES OF DEPOSIT AND DUE BILLS.

A complete record by number should be kept of all drafts, certificates of deposit and due bills, when issued, and if these vouchers be signed by two officers, each keeping a separate record of the number and amount, it will be found a great safeguard. Watch these accounts closely, as many defalcations and irregularities have been covered for a time through these channels.

### (234) FINANCIAL STATEMENTS, CONSTRUCTION OF.

The percentage of real resources to real liabilities gives a fairly accurate line on a bank's liability to liquidate its deposits. If this percentage is high and the officers and directors of the institution considered are known to be careful in the matter of loans, to require good and ample security, and are men whose integrity is above question, deposits can be made with a feeling of security.

This percentage varies with ordinary banks from 110 per cent to 135 per cent and it means that for every $100 of deposits there are from $110 to $135 of good resources with which to pay the $100 if demand be made.

The figures for six banks whose March statements were examined, are as follows, the name of the town in which the bank is located being given instead of the name of the corporation.

| Bank | Real Resources (Thousands) | Deposits (Thousands) | Per Cent |
|---|---|---|---|
| Grand Rapids | $ 3,184 | 2,393 | 133 |
| Chicago | 3,004 | 2,431 | 123 |
| Cleveland | 33,187 | 28,134 | 117 |
| Philadelphia | 36,123 | 31,470 | 114 |
| New York | 99,097 | 87,712 | 112 |
| Detroit | 6,489 | 5,859 | 110 |

The reports of ten other institutions with total resources varying from less than half a million to thirty-two millions were examined and the percentages for these were as follows:





Bank A, 126; B, 121; C, 119; D. 118; E, 116; F, 115; G, 115; H, 114; I, 112; J, 110.

In securing the above percentages the resource statement of each institution was closely scrutinized and all such items as "over drafts, premiums on bonds, furniture, and fixtures, taxes paid" were stricken out entirely and in those cases where the item of real estate was an appreciable factor of the whole it was materially scaled down. Furthermore, the resources of all national banks were diminished by the amount of their circulation. This was for the purpose of getting them on the same basis as state banks. The amount of federal deposits in the case of United States depositories was also deducted from both resources and deposits as these deposits are directly secured by national bonds and therefore are not subject to the same risks as the ordinary deposits.

The individual deposits were compared with so much of the total resources as the reports indicated were available for paying depositors.

Assuming the management risk to be the same for any number of banks, the percentage that the real resources are of the deposits (which are the only real liabilities,—capital stock, surplus, undivided profits, etc., being only book-keeping liabilities), indicates which one of the several institutions is the strongest. In the case of many banks the double liability to which the stockholders are subject furnishes additional strength.

*(R. H .Elsworth.)*

### (235) INTEREST ON SAVINGS DEPOSITS.

Quite a number of depositors complain about their inability to understand or check up their interest credits and stating that to all appearances savings banks figure depositors' interest to their own advantage. This question will no doubt interest a great many of our readers, and as the figuring of interest on depositors' pass books is no easy task for the bank teller who is first learning how; it is not difficult to understand why the process seems incomprehensible to the ordinary person who takes his book to be balanced at the bank once every six months.

The point as to whether savings banks figure interest to their own advantage is open to question. So far as the actual work is concerned, this is done by the use of interest tables which are mathematically accurate, and which, given the balance to draw interest and the time, shows the amount of interest to be credited at the prevailing rate at first glance. How this is done may be seen in the table printed below, taken from the Robinsonian Interest Tables, which will be found handy in every well-

regulated savings bank in the country. If not these tables, others like them.

We will suppose that the depositor's pass book shows he is entitled to interest on $200 at four per cent for a period of three months. The paying teller opens his interest tables at four per cent, turns to the table headed "Two Months—Days," traces down the column headed $2,000 to the bottom of the column opposite thirty days, and finds the interest to be credited is $2. That is, he drops off as many ciphers from the amount given at the space opposite the number of days as he took from the amount at the top of the column, one cipher having been dropped in the present instance. He then points off two places for cents. We will give only enough of this table to illustrate

2 MONTHS—DAYS.

| Days | $1000 | $2000 | $3000 | $4000 | $5000 |
|---|---|---|---|---|---|
| 1 | 0678 | 1356 | 2033 | 2711 | 3389 |
| 2 | 0689 | 1378 | 2067 | 2756 | 3444 |
| .... | .... | .... | .... | .... | .... |
| 30 | 1000 | 2000 | 3000 | 4000 | 5000 |

In using these tables, if the amount drawing interest is such a sum as $429 at four per cent for three months, or 90 days, the teller will find the interest on $400, on $20 and on $9 from the columns headed $4,000, $2,000 and $9,000 respectively, and add them together. That is, the interest on $400 is $4, on $20 is $.20 and on $9 is $.09, making the total interest, $4.29.

The question as to whether savings banks figure interest to their own advantage, therefore, rests with the question as to whether the 360 day year is used as a basis, 30 days to the month, or the 365 day basis. Under the former basis, the loss to the depositor is 1/72 of one per cent, an inappreciable amount on small balances, and the ease in figuring interest gained by using this basis is such that it is widely used abroad and in this country, and the American Bankers' Association is endeavoring to have the state legislatures in every state in the union, which does not now recognize this as the legal basis, to pass the necessary laws. The 360 day year is in common use everywhere, and will no doubt be eventually adopted as the legal basis for figuring interest all over the world.

Checking up the pass book, and determining what balance draws interest is the chief difficulty. This task is greatly simplified for each depositor, if he will turn to the rules and regulations printed in his book and find out from what dates interest is figured by his bank. Knowing and understanding this point, the rest is easy. The writer's pass book states that interest will be credited on balances deposited from January 1





to January 10, from April 1 to April 3, from July 1 to July 10, and from October 1 to October 3, interest being credited on amounts deposited between these specified dates and remaining on deposit for six months to July 1st or to January 1st, as the case may be. In order to make this clear, we give below the following page from an imaginary pass book.

North Side Savings Bank. Book No. 9899
New York, N. Y.
In account with John Doe.

| | Withdrawn | Deposited | Balance |
|---|---|---|---|
| March 12 | ... | $150.00 | .... |
| March 15 | $25 | ..... | $125 |
| March 17 | 50 | ..... | 75 |
| April 10 | ... | 75.00 | 150 |
| April 19 | 25 | ..... | 125 |
| May 1 | 25 | ..... | 100 |
| June 12 | .. | 75.00 | 175 |
| July 1, Interest credited | .. | .75 | 175.75 |

Now, in figuring the interest on this account, with its many deposits and withdrawals, and its nice balance of $75 on the last date of activity before July 1, on which date the semi-annual interest payments are made, the first impression would be that the interest is to be paid on a large amount. As a matter of fact, under the rules, interest will be paid first, on amounts deposited between January 1 and 10; no such deposits were made. The next period from which interest starts on deposits is from April 1 to 3, and as can be readily seen, the balance drawing interest from that date to July 1st is the balance of $75 on March 17th. This balance draws interest at four per cent from April 1st to July 1st, or three months, which, according to the tables printed above, will be $.75.

Two further explanations are in order: the first is that the amounts deposited from April 10th down will begin to draw interest from July 1st, the basis being the balance of $175 on deposit June 20th, plus the July interest. If on January 1st, this balance has been drawn down to $25, interest will be figured on undisturbed balances only during the six months on which dividends are paid.

The second explanation is as to an easy way to figure the interest without the use of tables. Still using the 360 day basis, the depositor will multiply $75 by .04, the interest rate, which gives him $3. This is the amount of interest for one year; as the period was three months, or one-quarter year, divide the $3 by 4, which gives $.75, or the amount of interest to his credit on his balance. This principle is readily applicable to any rate, and depositors should remember that interest is paid in savings banks for semi-annual or quarterly periods almost universally, so that with this explanation, the work of figuring interest on one's pass book should

be greatly simplified, and rendered a task within the reach of everybody's understanding.—*(Albert L. Wyman.)*

### INTEREST ON SAVINGS DEPOSITS.

The articles on figuring interest in a savings bank are always interesting and instructive. As the methods used in the larger savings banks in this section of the country (Portland, Maine), are somewhat different, perhaps they may also be of interest.

Our savings banks are purely mutual and do nothing but a savings bank business. We are, therefore, better able to specialize in our system than those banks and trust companies where savings accounts are merely a department. Our methods are the result of years of study to adapt them to our needs.

The requirements are—accuracy, speed and comfort. Our conditions as regards interest periods, rate, etc., may be summarized: Rate (for the last year and a half) four per cent. Interest allowed from the first of each month and credited May 1 and November 1 of each year.

It will perhaps correct an impression that all savings banks figure interest to their own advantage and not to the depositors, to state that we try to be absolutely fair. On a given amount the interest for one year is divided by twelve, for one month's interest, and when the fractional part of a cent is half or more the next cent is allowed. The other monthly periods are figured with equal exactness. Reference to the accompanying table (Form 1) will demonstrate this.

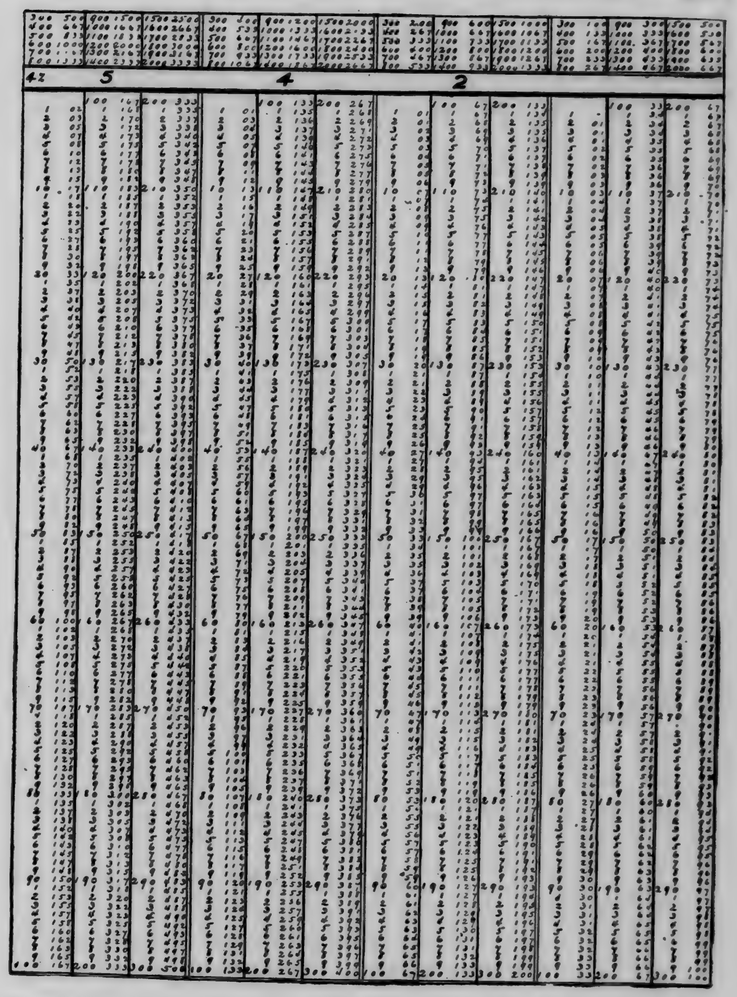
The tables are made by ourselves as we have found that no printed table can be used without undue strain on the eyes. The interest for each month is shown for every dollar up to $300 and for the even hundreds above that to $2,000. The large figures indicate the months. Higgins' drawing inks have been found more satisfactory than the common inks. Carmine is used for the dollars and India for the interest. All figures being as plain and uniform as possible.

The tables are mounted on book-binder's board covered with cloth, and are given several coats of a colorless lacquer which keeps them clean and bright.

In use they are supported on end in front of a pile of ledger cards and the interest on any desired amount can be instantly and accurately noted without causing fatigue to the eye or brain; the figures on the ledgers and tables being so nearly alike and practically the same distance from the eyes. It will be seen that no figuring is necessary except when the amount exceeds $300. Then it is only necessary to glance at the proper hundreds at the top of the required column and then at the odd dollars below, com-








bining the interest for the two, mentally, as the eye travels back to the ledger card.

The tables are equally convenient for book ledgers.

When the rate of interest is odd, as 3½ per cent, it is necessary for the tables to cover the six months' and three months' periods also. We

then find it convenient to use two tables; one for six months, giving the interest for each dollar up to $1,000, and the other for five, four, three, two and one months as described. The six months' interest on an amount between $1,000 and $2,000 (legal limit for ordinary accounts) is found by adding to the interest of an amunt $1,000 less than the one desired, the interest on $1,000. This, of course, is done mentally and soon becomes mechanical.

As to the size, the table illustrated measures twelve inches in width by seventeen in height.

Take a more extended account (Form 2), and one that is more truly

John Roe — 128 Emery St — 76450

In account with CONGRESS ST BRANCH OF PORTLAND SAVINGS BANK Portland, Me.

| DATE | | | DEPOSITED | WITHDRAWN | BALANCE | |
|---|---|---|---|---|---|---|
| 1907 | May | 1 | 40 | | | |
| | | 14 | 10 | | 50 | |
| | June | 11 | 20 | | 70 | |
| | July | 15 | 8 | | 78 | |
| | Aug | 21 | 16 | | 94 | |
| | Sept | 5 | 15 | | 109 | |
| | | 12 | 8 | | 117 | 80 |
| | | 18 | 10 | | 127 | 17 |
| | Dec | 110 | 1 54 | | 128 54 | 27 |
| | | | | | | 08 |
| | | | | | | 11 |
| | | | | | | 11 |
| | | | | | | 1 54 |

illustrative in our office. (We open accounts for as small a sum as one dollar.) The items to be figured are not only odd amounts but are so deposited as to draw interest from the first day of each month. This makes six interest items. The sum of $40 deposited May 1 is entitled to six month's interest which we put down as 80c in pencil in the column left for that purpose on the ledger card. The next item, May 14, $10, draws interest from June 1st (or five months.) A glance opposite 10 in the five months column gives 17c. The next, $20 at four months is 27c, $8 at three months (1 per cent) 8c, $16 at two months, 11c, $33 at one month 11c. Total $1.54. This example contains as many interest items as it is possible to have and is a fair illustration of the accounts which take the most time to figure. An account might be more complicated by additional deposits and frequent withdrawals but would not take appreciably longer. A glance at the balance column will readily indicate the amount entitled to interest during the period in question. Of course the easiest accounts to figure are the six months' accounts which make only one item—two per cent of the balance.

So the labor varies from six items and a footing to a single item, but all are found and noted as rapidly as the eye and hand can work.





There is no time or effort lost in making computations on a separate paper and having to copy the result on the ledger card.

To guard against errors the figures are verified and checked later in the month by another clerk. His procedure is the same as in the original figuring except that he does not have to put down the figures. He simply checks the total. So that the "review" takes just so much less time.

Although we have over 26,000 accounts with only four clerks working odd moments at it, we regard figuring our interest as rather pleasant work and do not find it a "grind." We have a whole month to do it in and find sufficient time during regular business hours. With the review it makes over 52,000 accounts to figure, it will be readily acknowledged, I think, that a few seconds' time or a few figures saved on each account makes a marked difference when there are any considerable number of accounts to figure. Every figure made gives a chance for an error. So the fewer figures used or the more a process is simplified the less chance there is for errors.—*(H. A. Roberts.)*

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INTEREST ON SAVINGS DEPOSITS. The simplest and most satisfactory method I have found is to figure the interest at the rate of 3 per cent per annum and then change the results to whatever rate may be in use. The reason for choosing 3 per cent is that this rate is equal to ¼ per cent per month and can be figured mentally much quicker than with the use of a table. By providing the account checks with two interest columns (see form), the calculation can be made at the time of posting each item, which takes but a moment of additional time and has the great advantage that at the end of the period the work is practically done, except for finding the balance of interest and putting it down in red ink.

The trust companies in St. Louis some time ago increased the rate from 3 to 3½ per cent. To change the 3 per cent rate to 3½ per cent it is only necessary to add ⅙ to the sum found. If the rate is 4 per cent, add ⅓. The form and explanation herewith inclosed will make the matter plain.

I may add that it is customary here to allow interest on deposits made up to and including the 5th from the 1st of the month and on deposits after that date from the first of the following month. The interest on withdrawals is forfeited from the date of the oldest deposits covering the amounts. It will be seen that the form of ledger used, whether card, loose leaf or bound book, makes no difference.

*(G. H. Moll.)*

(236) HANDLING OF MONEY.

No officer or employe handling the money should be permitted to make entries in the ledgers, general cash book, or sheets, or discount or collection registers, and those keeping these books should not be allowed to handle the cash.

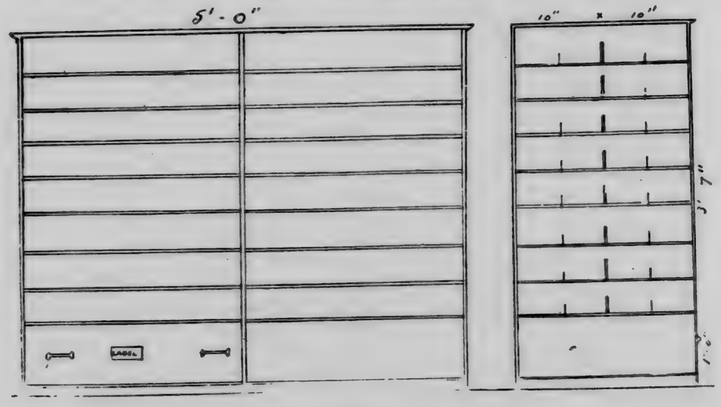
OUTSIDE BUSINESS ENGAGEMENTS. Bank directors should exercise every caution in permitting employes to be connected with mercantile firms or corporations, either as partners or officers; the division of interest, with the natural accommodations required in trade, present temptations too serious to be ignored. Bank officials are generally in request for trusted officers in their communities, such relations being calculated to inure to the advantage of their banks, but the wisdom of permitting such combinations to exist should receive the serious consideration of bank directors. Should circumstances appear to warrant them, however, it is recommended that periodical audits be made with the particular view of preventing the application of the funds of one office to conceal any possible defalcation in another.

(237) PASS BOOKS, METHOD OF HANDLING.

It has puzzled a great many bank officers and employes as to the quickest and safest way of handling pass books where there are some thousands of books to be taken into consideration.

The writer is connected with a company having about fifteen thousand accounts but this article will apply to any bank, no matter how large or small the number of accounts may be.

The old way of handling books was by filing them alphabetically.



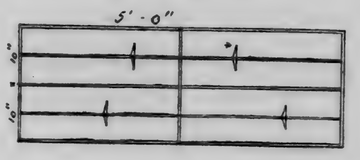





A customer would call for his book and although the alphabet was subdivided there would be something like a hundred or more books to be looked over before the right one was found. This took time. It took more time when it was skipped going through the first time and the clerk had to go through again.

To overcome this waste of time it was decided to file books numerically. A cabinet was ordered (Illustration 1) specially made, containing two compartments. Each compartment having eight drawers, all of which have labels showing what numbers are contained in them. The drawers are twenty inches deep and are divided for two rows of books, numbering from left to right. Each division of a drawer contains an adjustable (sliding) holder so the the books stand up in place whether the division is full or only half full.

To facilitate the handing out of books we have a slip containing their account number (Illustration 2) which we give to the customers when they leave their books. It is now simply a matter of turning to the cabinet, getting the book bearing the corresponding number to the one on the slip and handing it to the customer. If the customer does not come in person, it is a simple matter to ask the party calling for the book what name it should bear. This safeguards us against giving a book to one not entitled to it.



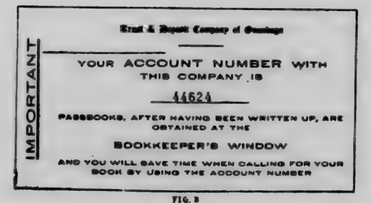




FIG. 3

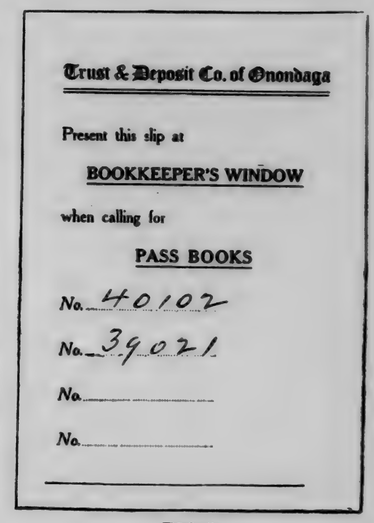



FIG. 2

We also issue with each new account a card (Illustration 3) which immediately starts the customer in the right path. Experience has taught us that a great many customers soon familiarize themselves with their account number and simply step to the book-keeper's window and call out their number.

The difference between the old and the new system is that we can hand out from five to ten books under the new while we were handing out only one under the old.

*(M. V. White.)*

### (238) POSTING WORK DAILY.

The work of a bank, however few the items, should be closed up and posted daily. Some country banks have a practice of posting their ledger items once or twice a week, and entering up the discounted paper once a week. It is impossible, with such methods, to keep an adequately close track of the business.

### (239) RECONCILIATION OF STATEMENTS.

There are several methods of reconciling accounts current with correspondents. Inasmuch as the most important correspondent with the majority of banks is the New York correspondent, we will discuss the reconcilement of monthly balances with the New York bank.

On the credit side of the New York draft register appears the amount of every draft drawn on the New York bank, with a number corresponding to a similar number on the stub of the draft book. If the draft be incorrectly drawn, and canceled, its amount should appear in sequence, and be footed in the daily total credit to New York. On this side of the register also appears the amount of any charge for collection made by New York, or the amount of any of the country banks' checks sent from New York for credit and advice, and of currency sent from New York by express.

On the debit side of the New York draft register appears a record of all items sent to New York for credit, transfers of credit from other correspondent banks, currency by express to New York, and the amount of interest paid by the New York correspondent on the daily balances of the country bank. On this side also appears the amount of what is termed "Returned Drafts," i. e., drafts issued to customers, but returned to the bank and cashed, or drafts incorrectly drawn and canceled. The letter "R" is marked in the check column after the amount of each returned draft, the draft stamped "Paid," with the date of payment, and filed away until the end of the month, when the debit and credit totals





of each day are footed, and the monthly balance of the draft register brought down.

If all the drafts were paid within a few days of their issue, the reconcilement of balances would be an easy matter, but often drafts are outstanding for months, and these, with the remittances in transit, make many thousands of dollars difference between the balance of the draft register and that shown on the New York statement.

The checking of the amounts in the draft register should be carefully done, the cashier calling the number of each draft from the statement, and the assistant calling back the amount of the draft corresponding to the number called, and marking in red ink, in the check column of the register, the number of the month for which the statement is sent. After every item of debit and credit on the statement is correctly checked, the return drafts paid during the month are also checked on the register in the same manner, including the letter "R" after the month number.

On a sheet of paper, arranged as below, is entered the number of each credit page of the register having any amounts unchecked by red ink, and opposite the page number, the amount of the unpaid drafts on such page, up to the end of the month, and the amount footed in total. This sheet should be preserved until the following month, as it facilitates locating the pages having unpaid drafts.

| | |
|---|---|
| 56 | $ 2.60 |
| 140 | 250.00 |
| 182 | 500.00 |
| 222 | 30.00 |
| 223 | 700.00 |
| 229 | 16.00 |
| 230 | 175.00 |
| 231 | 66.50 |
| | 14.44 |
| | 89.65 |
| | 329.67 |
| 232 | 275.50 |
| | 22.00 |
| | 83.34 |
| | 650.00 |
| | 488.24 |
| | 99.90 |
| | 491.88 |
| | 23.90 |
| | 329.57 |
| | 27.13 |
| | 600.00 |
| | 2,339.75 |
| | 3,761.86 |
| Drafts unpaid June 1 | $11,366.93 |

If the work thus far has been correctly done, the reconcilement of balances is comparatively easy, as will be seen from the following exhibit:

RECONCILEMENT FOR MAY.

DEBITS.

| | | |
|---|---|---|
| Total debit of register | | $118,732.25 |
| N. Y. St. Dr. Bal. May 1st | | 41,765.04 |
| Items sent in April, credited in May | | 2,218.30 |
| | | $162,715.59 |
| | *1 | 38,745.13 |
| | | $123,970.46 |
| | *2 | 103,305.15 |
| N. Y. Bal. June 1 | | $ 20,665.31 |
| Items sent in May, not credited | | 8,835.22 |
| Our Dr. Bal. May 1st | | 29,909.91 |
| | | *$38,745.13 |

CREDITS.

| | | |
|---|---|---|
| Total credits | | $118,732.25 |
| Drafts unpaid May 1 | | 14,073.41 |
| | | $132,805.66 |
| | *3 | 29,500.51 |
| | *2 | $103,305.15 |
| Drafts unpaid June 1 | | 11,366.93 |
| Our Dr. Bal. June 1st | | 18,133.58 |
| | *3 | 29,500.51 |

After the correctness of the New York figures has been proved, the statement with the two forms above shown and all drafts paid during the month should be filed in a convenient place for reference, if necessary, the following month.

Another method of reconciling the New York account is as follows: We will suppose the account current received from New York states the balance due the country bank as $7,456.19. The balance, as shown by the books of the country bank is $8,208.60. The reconcilement reported by the country bank to its New York correspondent as follows:

"Gentlemen—We have received your statement of account as of the close of business, Oct. 31, 1899, showing that there is a balance due us according to your books of $7,456.19.

We respectfully submit the following reconcilement:

| | | | |
|---|---|---|---|
| You state balance due us | | | $7,456.19 |
| A. We charge, you do not credit: | | | |
| Our letter Oct. 30 | | | 419.67 |
| Our letter Oct. 31 | | | 864.17 |
| Allowing for these items our balance would be | | | $8,740.03 |
| B. We credit, you do not charge: | | | |
| Checks drawn by us on you, and not yet charged to us | 267 | $ 45.61 | |
| | 268 | 46.72 | |
| | 274 | 111.14 | |
| | 276 | 24.71 | 228.18 |
| Allowing for these items, our balance would be | | | $8,511.85 |
| C. You charge, we do not credit: | | | |
| Your letter to us, Oct. 30 | | $468.17 | |
| Your letter to us, Oct. 31 | | 214.63 | 682.80 |
| Allowing for these items (credited by us since Oct. 31st), our balance would be | | | $9,194.65 |
| D. You credit, we do not charge: | | | |
| Oct. 15th, collection on Madison, Wis. (when did we send?) | | $ 67.42 | |
| Oct. 29th, collection on Chicago | | 918.63 | 986.05 |
| Allowing for these items, our balance would be | | | $8,208.60 |
| Which agrees with our books. | | | |





Please advise particulars concerning item $67.42 credited to us by you, Oct. 15th."

Below we give another method based on the same principles, the same figures being used. By using the ordinary blank book as a reconcilement book, the calculations can be transferred from month to month.

RECONCILEMENT BOOK.

Left-hand Page.

| | |
|---|---|
| We state bal. due us | $8,208.60 |
| We credit, they do not charge our checks on them— | |
| No. 267 | 45.61 |
| No. 268 | 46.72 |
| No. 274 | 111.14 |
| No. 276 | 24.71 |
| They credit, we do not charge— | |
| Oct. 15, Coll. Madison, Wis | 67.42 |
| Oct. 29, Coll. Chicago | 918.63 |
| Total | $9,422.83 |

Right-hand Page.

| | |
|---|---|
| They state balance due us | $7,456.19 |
| We charge, they do not credit— | |
| Our letter, Oct. 30 | 419.67 |
| Our letter, Oct 31 | 864.17 |
| They charge, we do not credit— | |
| Their letter, Oct. 30 | 468.17 |
| Their letter, Oct. 31 | 214.63 |
| Total | $9,422.83 |

Still another method is below illustrated. It is intended to use either a reconciliation book or to make a memorandum of same on the journal.

Dr.

| | | |
|---|---|---|
| New York correspondent account, Country Bank— | | |
| To Bal. per ledger | $8,208.60 | |
| Oct. 15, Coll. Madison, Wis | 67.42 | |
| To Oct. 29, Coll. Chicago | 918.63 | |
| By letter, Oct. 30 | | $ 468.17 |
| By letter, Oct. 31 | | 214.63 |
| By Bal. due country bank | | 8,511.85 |
| | $9,194.65 | $9,194.65 |

Country Bank account New York Correspondent—

Cr.

| | |
|---|---|
| By Bal, per ledger | $7,456.19 |
| By letter Oct. 30 | 419.67 |
| By letter, Oct. 31 | 864.17 |

Dr.

| | | |
|---|---|---|
| To checks (not in) | No. 267 | $ 45.61 |
| | No. 268 | 46.72 |
| | No. 274 | 111.14 |
| | No. 276 | 24.71 |
| To Bal. due Country Bank | | 8,511.85 |
| | | $8,740.03 $8,740.03 |

(240) REDISCOUNTS.

Many country banks fail to keep a rediscount account. This is an unsatisfactory and unsafe practice, as the books of such a bank do not show the true condition, and, under such circumstances, there is an opportunity for manipulation of paper which should not exist.

(241) SECURITIES, ACCESS TO.

Quite a large number of banks carry heavy investments in stocks, bonds, mortgages, etc., also large amounts as collateral for loans. These should be kept securely, and a proper record made in a register prepared for that purpose, which should be kept by a clerk, and the entries made from vouchers accompanying the securities. The voucher for the withdrawal of securities should be in the form of a receipt. The officer withdrawing the securities should be permitted to do so only in the presence of a second party designated by the board.

(242) SPECIAL EXAMINATIONS.

Of the various methods employed by banks to circumvent fraudulent actions, none have given better results than special exam-





inations. Sometimes these are carried on by a part of the force of the bank, but, all things considered, it will generally be found wiser to employ an outside party as being more apt to be free from the element of partiality or influence. Frauds can hardly continue long where a careful special examination is made annually or semi-annually, or by departments monthly. It is also a satisfaction to stockholders to have complete reports from the examinations of an outside and independent auditor.

(243) STOCK TRANSFERS.

One of the most important sections of the records of a bank is the keeping a careful record of all the transfers of the bank's stock. While the care of the stock books and the issuing and transferring of stock is generally one of the duties of the cashier, yet it sometimes happens that the general ledger book-keeper or some clerk is delegated to make the proper records. Whether this is so or not, a familiarity with the methods adopted will be advantageous, as no doubt every bank clerk has an ambition to be a bank cashier some day.

A full description was given of the methods of issuing stock and the proper records to be kept. As the stock certificates frequently change hands from various causes—sale, death, changing of name (in case of women), etc.—it becomes necessary to keep a careful and concise record of these changes. The proper book in which to keep these records is called a "Stock Transfer Book," a diagram of which, showing the method of keeping it we here give. The left-hand columns show the history of the issuing of the stock, and the right-hand columns the transfers. The items are posted into the transfer book from the stubs of the certificate book. The diagram shows the original stock, issued January 2, 1895, to be 200 shares. The transfer shows that Geo. I. Brown transferred 25 shares of his stock to E. J. Brooks, retaining 25 for himself, and that Samuel Jones transferred 20 shares to S. B. Brewer, keeping 30 shares for himself, and that Robt. Smith disposed of all his stock to James Peebles. Also that later on S. B. Brewer disposed of 10 shares of stock to Joseph Samson and retained 10 for himself. To learn the amount of stock on hand, foot the columns of transfers and deduct their combined sum from the total of all the issues, the difference will give the stock on hand, and this should agree with the capital stock account on the general ledger. To obtain a list of the existing stockholders, it is only necessary to take from the transfer book those names against which there appear no transfers. This can be proved by the outstanding certificates, as shown by the certificate book.

Whenever it becomes necessary to transfer a portion of a stockholder's stock, the old certificate should always be taken up and canceled and two new certificates issued, one representing the stock transferred and the other the balance of the stock still retained by the stockholder.

We mention this particularly, as we have seen transfers made by simply noting the same upon the back of the old certificate, issuing simply a new certificate for the stock transferred. Such a proceeding is exceedingly irregular, and is liable to give trouble.

There are many conditions regarding the transfers of stock that it may be well to consider.

No transfers are considered legal except they be made upon the books of the bank, and such transfers should not be made except upon presentation of the old certificate. In case the old certificate is lost, a duplicate may be issued, but the certificate-holder should furnish a bond of indemnity to the bank for double the amount of the certificate lost.

If a certificate is presented for cancellation and transfer, the party presenting should be well known to the bank officer; otherwise, should always be identified. The mere fact of being the holder of a certificate should not be sufficient evidence to entitle to transfer.

Where transfers are made through a power of attorney, great care should be exercised against the possibility of forgery.

If transfers are made by a trustee or executor, they should be obliged to present their authority for acting in that capacity. Certificates made to trustees or executors should always state for whom or whose estate the party acts, and no signature of a trustee or executor should be considered valid unless stating for whom.

A transfer made by a married woman of stock issued to her before her marriage should always be signed by her in her married name, with the addition of her maiden name, as appearing in the body of the certificate, thus: "Mrs. Jane Smith Jones, formerly Miss Jane Smith."

Executors or administrators of estates sometimes hold in their hands shares of stock of the deceased person, and feeling that the bank is safe, and having no difficulty in collecting the dividends, they carelessly neglect to have the stock properly transferred to themselves as executors or administrators. The most troublesome complicationes have sometimes arisen by this course, in consequence of the death of the administrator, for instance, or any serious change in the organization of the bank, and the bank officers should use every means to have the proper transfer made as early as possible.

In case a transfer is requested by the officer of another corporation, not personally known to the bank, and especially if it comes through





another party holding a power of attorney, the safest plan is to obtain from the corporation a copy of the vote or resolution of the board of directors of such corporation, showing the authority of the officer to make the transfer, with the seal of the corporation attached.

In cases of transfers, the old certificates should always be marked or stamped across the face, "Canceled and Transferred," giving the date and the number or numbers to which transferred.

### (244) VACATIONS.

The officers and employes of a bank should be required to take a vacation every year. The employment of a substitute to fill the vacancy will be found advantageous and may be the means of discovering irregularities, if any should exist.

### (245) LIABILITY REGISTER.

One of the most efficient and convenient methods of maintaining a complete record of the individual liability to the bank of each customer is by use of the card index. To intelligently handle the question of loans, the loan committee or the officer who happens to be responsible for loans, should have complete information as to the existing liability of each applicant. Not only should this information be complete as to his liability as "principal" but as an indorser as well.

To maintain a record that will instantly give this information in books is out of the question, since the record is subject to frequent changes.

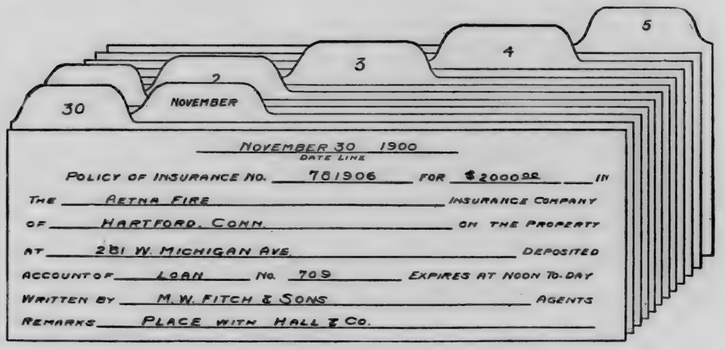
| DATE | No | ENDORSERS | DUE | NO. PD. | MAKER OR DISCOUNTER | | | ENDORSER | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AMOUNT DISCOUNTED | AMOUNT PAID | BALANCE | AMOUNT DISCOUNTED | AMOUNT PAID | BALANCE |
| | | | | | | | | | | |

The record should be on the unit plan, i. e., an individual record for each customer, and the card index furnishes an easy means of accomplishing this. We illustrate a form which shows the customers' liability both as principal and indorser. The cards should be filed alphabetically.

### (246) INSURANCE EXPIRATIONS.

It is safe to say that every bank which loans money on real estate,

or accepts real estate mortgages as collateral security for loans, has an insurable interest in the property covered by the mortgage. Usually the fire insurance is either assigned or made payable directly to the bank. While it may be assumed that the interest of the agent will insure his bringing the matter to the notice of the insured at the proper time, it is a wise provision on the part of the bank to maintain its own record of fire insurance expirations.




The illustration shows a convenient form of card for this record. This form gives the No. and amount of loan, name of borrower, names of insurance companies, amounts of policies and dates of expiration. Below is a record of the location of the property with its assessed valuation.

It will be noted that the card bears a tab, or projection, on which is printed January. This represents the month of expiration and in making records of expirations in that month only cards bearing the January tabs will be used. This permits of the filing of the cards in alphabetical order, and at the same time brings all expirations to notice on the first of the month.

### (247) MONTHLY BALANCES.

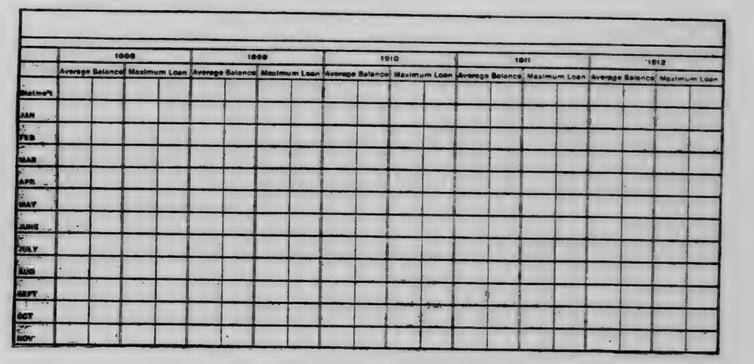
For the same reason as a manufacturing or commercial house finds a list of customers showing the business transacted with each, of great value, a bank finds use for its customers' list. But unlike a commercial house, the bank does not find it necessary in estimating the worth of the customer to the institution, to have a record of his entire purchases. With the bank, the purpose is served by a record that shows the average business of the customer.

A record of monthly balances tells the story of the customer's transactions in a graphic manner. Not the amount of money deposited and





withdrawn, but the amount left on deposit, determines the value of his account. Here again the card index can be used to good advantage. True, such records were formerly kept in bound books but that meant more or less frequent transfers and a search through much obsolete matter to find records of value. With the card index a card is used for each customer, and the cards are filed alphabetically.




### (248) PROSPECTIVE CUSTOMERS.

In these advanced and progressive days when it is no longer considered either a crime or a violation of professional ethics for the banker to advertise, much attention is given to the question of increasing the business through newspaper advertising and direct solicitation. The bank which does not advertise is now the exception and with the realization of the necessity of taking advantage of every means to increase business, has come a marked improvement in methods. As the advertising man would say, the banks are beginning to give reasons why a man should patronize them.

Banks that advertise make a special bid for small accounts, and it is this class of accounts which are most likely to be secured through advertising in its various forms. And the bank that closely follows every opportunity to secure these small accounts, is the one that make a success of its advertising campaign.

At least one bank has found it profitable to solicit in a systematic manner, the accounts of men and women in the various trades and professions. This bank uses a card like the illustration for each prospective customer, using the cards in the same manner that any commercial house operates a follow-up system. The feature of special interest in this sys-

tem is the use of cards of different colors for each line of business. Among the lines solicited are attorneys, doctors, teachers, mechanics, architects,

PHYSICIANS

NAME_____ DATE_____

STREET_____ CITY_____

NATURE OF PRACTICE_____ INCOME_____ RATING_____

| FORM LETTERS MAILED | | | | | |
|---|---|---|---|---|---|
| NO. | DATE | NO | DATE | NO | DATE |
| | | | | | |

| ANSWERS RECEIVED | | |
|---|---|---|
| | | |

| DEPOSITS (MEMO TO SHOW RESULTS) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | FEB | MCH | APL | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
| | | | | | | | | | | | |

dentists, clerks, small retailers, and women, each distinguished by the color of the card. By systematically going after the accounts of people in each line this bank has largely increased its number of small accounts, and a certain per cent of these are destined to grow into accounts of much greater magnitude.

### (249) BEAR.

(STOCK EXCHANGE.) An attempt to depreciate the market price of a stock or commodity of fluctuating value by flooding it with large quantities.

### (250) BEARER.

When a check is made payable to bearer it entitles the holder to payment on presentation without identification or indorsement.

### (251) BENEVOLENT SOCIETIES.

Societies established for the aid of the needy or suffering and whose maintenance is usually provided for by donations, subscriptions and legacies.

The accounting for such societies should consist in keeping a record of cash received from donations, subscriptions, legacies, interest on investments, etc. A form of statement to be furnished to the patrons and members of the society should be on the following lines:





INCOME AND EXPENDITURE ACCOUNT.

| Dr. | Cr. |
|---|---|
| To Housekeeping. | By Balance from last year's account. |
| " Clothing and General Expenses. | " Subscriptions and Donations. |
| " Salaries and Wages. | " Interest on Investments. |
| " Rates, Taxes and Insurance. | |
| " Gas Lighting and Coals. | |
| " Medical Officer and Chaplain. | |
| ' Printing, Stationery and Advertising. | |
| " Cash expended in Charity | |
| " Balance, being in excess of income over Expenditure to date. | |

CAPITAL ACCOUNT.

| Dr. | Cr. |
|---|---|
| To balance carried forward to next year's account. | By Balance from last year's account. |
| | " Legacies. |

BALANCE SHEET

| LIABILITIES. | ASSETS. |
|---|---|
| To Capital Account. | Investment on Capital Account. |
| " Revenue Account. | Consols. |
| | Freehold Buildings. |
| | Cash at Bankers: |
| | On Capital Account. |
| | " Revenue Account. |

### (252) BETTERMENTS AND ADDITIONS.

A technical term used to define the actual value of repairs made over and above that which is necessary to keep a fixed asset at its present value; also used to define the cost of such additions as increase the value of an asset. When such betterments are made in connection with buildings, machinery and plant, their value in the balance sheet as an asset is frequently fictitious and represents expenditures for which no return can ever be expected.

### (253) BILL.

A record of goods purchased; service rendered or work done, showing price and total cost for the information of the purchaser or client. A sales ticket. An invoice. (See Account.)

### (254) BILL BOOK.

A record book in which are entered full particulars of notes receivable and notes payable. See bills receivable book and bills payable book.

### (255) BILL CLERK.

The clerk who makes out the bills or invoices.

A bill clerk is quite an important official in large mercantile houses, is well paid and must be very expert at extensions, being able to make

them mentally as the goods are called to him. This efficiency can only be obtained by long experience and close application.

In many wholesale establishments these bills are made out at the dictation of a clerk who assembles the goods for each customer and dictates to the bill clerk the quantities and prices of goods sold. The bill clerk extends the amounts in duplicate. The latter is sent to the office and posting to the customer's account is made therefrom.

It is appropriate at this point to explain and illustrate the following excellent method of proving the postings from these duplicate invoices.

As each posting is made the book-keeper places a "marker" opposite the account.

When all postings have been made, the book-keeper turns to the first affected account in the ledger as shown by the marker and extends in the balance column the balance of the account.

All of yesterday's balances are then listed and added on an adding machine and also today's balances, a machine with a wide carriage being used. Should yesterday's balance show a credit instead of a debit balance, the amount is listed and added with today's balances. A credit on today's balance is added to yesterday's balances.

The sales for the day are then listed and added on the machine in the "debit postings" column, then the credit postings in another column. The credit postings include credit memorandums and cash items. The difference between the total of yesterday's balance and the total of today's balances should be in direct balance with the difference between the total of the credit and debit postings. If not, there is an error in the work.

### (256) BILL OF CREDIT.

(In Mercantile Law.) A letter sent by an agent or other person to a merchant desiring him to give credit to the bearer for goods or money.

### (257) BILLS DISCOUNTED.

An account carried to show the amounts of bills receivable deposited with the bank for discount. A column is usually provided in the Bills Receivable Register to record transactions of this nature.

### (258) BILL OF EXCHANGE.

A written order from one person to another, directing the person to whom it is addressed to pay to a third person a certain sum of money therein named.

An open (unsealed) letter addressed by one person to another directing him, in effect, to pay, absolutely and at all events, a certain sum of money therein named, to a third person, or to any other to whom that third person may order it to be paid, or it may be payable to bearer or to the drawer himself.





A bill of exchange may be negotiable or non-negotiable. If negotiable it may be transferred either before or after acceptance.

The person making the bill, called the drawer, is said to draw upon the person to whom it is directed, and undertakes impliedly to pay the amount with certain costs if he refuses to comply with the command. The drawee is not liable on the bill till after acceptance, and then becomes liable as principal to the extent of the terms of the acceptance; while the drawer is liable to the payee and indorsees conditionally upon the failure of the acceptor to pay. The liabilities as between indorsers and indorsees are subject to the same rules as those of indorsers and indorsees on promissory notes.

A foreign bill of exchange is one of which the drawer and drawee are residents of countries foreign to each other. In this respect the states of the United States are foreign to each other.

An inland bill of exchange is one of which the drawer and drawee are residents of the same state or country.

The distinction between foreign and inland bills of exchange becomes important with reference to the question whether protest and notice are to be given in case of non-acceptance.

The bill must be written. It should be properly dated both as to place and time of making, but this is not essential to the validity of the bill; if not dated it will be considered as dated at the time it was made. Bills are sometimes ante or post-dated for convenience.

The subscription of the sum for which the bill is payable will aid an omission in the bill, but it is not indispensable.

The time of payment should be expressed, but if no time is mentioned it is considered as payable on demand.

The place of payment may be prescribed by the drawer, or by the acceptor on his acceptance, but is not generally done, in which case the bill is considered as payable and to be presented at the usual place of business of the drawee, at his residence where it was made, or to him personally anywhere.

Such an order or request to pay must be made as demands a right, and not as asking a favor, and it must be absolute and not contingent, but mere civility in the terms does not alter the legal effect of the instrument. It must contain words requiring payment.

To make a bill negotiable it must be payable to the order of the

payee or to bearer, or must contain words of negotiability. But negotiability is not essential to the validity of a bill.

The sum for which the bill is drawn should be written in full in the body of the instrument, as the words in the body govern in case of doubt. And the amount must be fixed and certain and not contingent, and it must be payable in money and not in merchandise; and is not negotiable if payable in "bank bills" or in "currency," or other substitutes for legal money of similar denominations. It is not necessary, however, that the money should be current in the place of payment, or where the bill is drawn, it may be in the money of any country whatever.

"Value Received" is of no use in a negotiable bill.

The bill should be subscribed by the drawer, though it is sufficient if his name appears in the body of the instrument; and should be addressed to the drawee by the christian name and surname, or by the full style of the firm.

The parties to a bill are the drawer, the drawee, the acceptor and the payee. Other persons connected with a bill in case of a transfer are the indorser, indorsee and holder. All the various parties need not be different persons. It sometimes happens that one or more of the apparent parties to a bill are fictitious persons. The rights of a bona fide holder are not thereby prejudiced, even when the payee and indorser are fictitious or even where the drawer and payee are both fictitious.

## (259) BILL OF LADING.

"The written evidence of a contract for the carriage of and delivery of goods sent by sea."

"A written acknowledgment of the receipt of certain goods and an agreement for a consideration to transport and to deliver the same at a specified place to a person therein named or his order."

"A memorandum or acknowledgment in writing, signed by the master or captain of a ship or other vessel, that he has received, in good order, on board of his ship or vessel, therein named, at the place therein mentioned, certain goods therein specified, which he promises to deliver in like good condition (the dangers of the sea excepted) at the place therein appointed for the delivery of the same, to the consignee therein named, or to his assigns, he or they paying freight for the same," or a similar acknowledgment made by a carrier by land.

A through bill of lading made by a carrier by land is one where the carrier contracts to transport over its own line for a certain distance certain merchandise or stock, there to deliver the same to its connecting lines to be transported to the place of destination at a fixed rate for the whole distance.





A bill of lading should contain the name of the shipper or consignor, the name of the consignee, the names of the vessel and her master, the places of shipment and destination, the price of the freight, and, in the margin, the marks and numbers of the things shipped.

Though it is not necessary that the shipper should sign the bill of lading, yet if the terms of the bill restrict the carrier's common law liability, his assent thereto must be shown. This assent need not be express; it is sufficiently indicated by an acceptance of the bill of lading containing the restrictions.

A bill of lading is usually made in three or more original parts, one of which is sent to the consignee with the goods, one or more invoices are sent to him by other conveyances, one is retained by the merchant or shipper, and one should be retained by the master. Where one is marked "original" and the others "duplicate," "triplicate," etc., they are all in effect originals.

Where a bill of lading is given, and accepted without objection, it is the real contract by which the mutual obligations of the parties are to be governed and not any prior agreement.

Exceptions in a bill of lading are to be construed most strongly against the carrier.

## (260) BILLING IMPROVEMENTS.

A positive double check! Every time you introduce one into your business methods, you stop leaks. Leaks in shipping departments are particularly expensive—they occasion loss of goods, unnecessary correspondence, and sometimes friction between the house and customer.

Shortages especially are bad—rather than offend the customer, concessions are often made to cover shortages claimed, unless, of course, the customer gets the "shortage habit."

You hear of all the "shortages," occasionally of the "overs."

There's the rub.

If when packing goods the shipping clerk checks the quantity figures as put down by the order clerk, it is one form of a check, but not a positive one.

Before describing the positive check, which is one only of the several good features thereinafter shown, it may be well to explain how "Cut-Corner" work is made possible.

Most "Cut-Corner" work is affected by manifolding several different kind of records (of even or varying sizes of sheets) at one operation.

The flat writing surface of the billing machine permits the execution of two sets of sheets of even or varying sizes, each set held independently—manifolding clear cut, no smudging, registration absolute.

These facts have enabled the devising accountant to produce surprising results, to perfect new ideas and to accomplish the revolution in methods, which began with the introduction of the flat bed billing machine.

The reader can comprehend how a large sheet 17x14 can be placed on the writing surface of the billing machine and firmly held either on the right or left side of same.

With a "Sliding Bill Holder" device running parallel with the left side of the writing surface, an invoice (or a dozen, if necessary), can be held in proper registration with the large sheet, upon which is manifolded a continuous record of all the invoices charged—mind you, when the bill is made, the charge is manifolded on the large sheet—the sales sheet.

This is a safer plan than making an invoice and then taking a chance of the office boy occasionally losing one before it is copied in book, by means of a letter press—but no need of dwelling upon an unsafe way.

The forms of the Winsted Silk Co., illustrated herein, are numbered for identification purposes, as follows:

1. Invoice.
2. Blind.
3. Shippers' ticket.
4. Express label.
5. Express receipt.

All of these sheets are gummed on the left edge, to facilitate handling, as they are all held on the sliding bill holder at once in connection with

6. The sales sheet,

which is independently held on the machine. They are described as follows, viz.:

Invoice—The invoice is the top sheet.

Blind—This is a narrow strip of paper under the invoice at the left edge of forms, just wide enough to prevent "quantities" from manifolding on to the shipper's ticket.

Shipper's Ticket—As long as the invoice, and enough narrower to prevent prices from manifolding thereon.

Express Label—As wide as the invoice, but as long as the heading only.

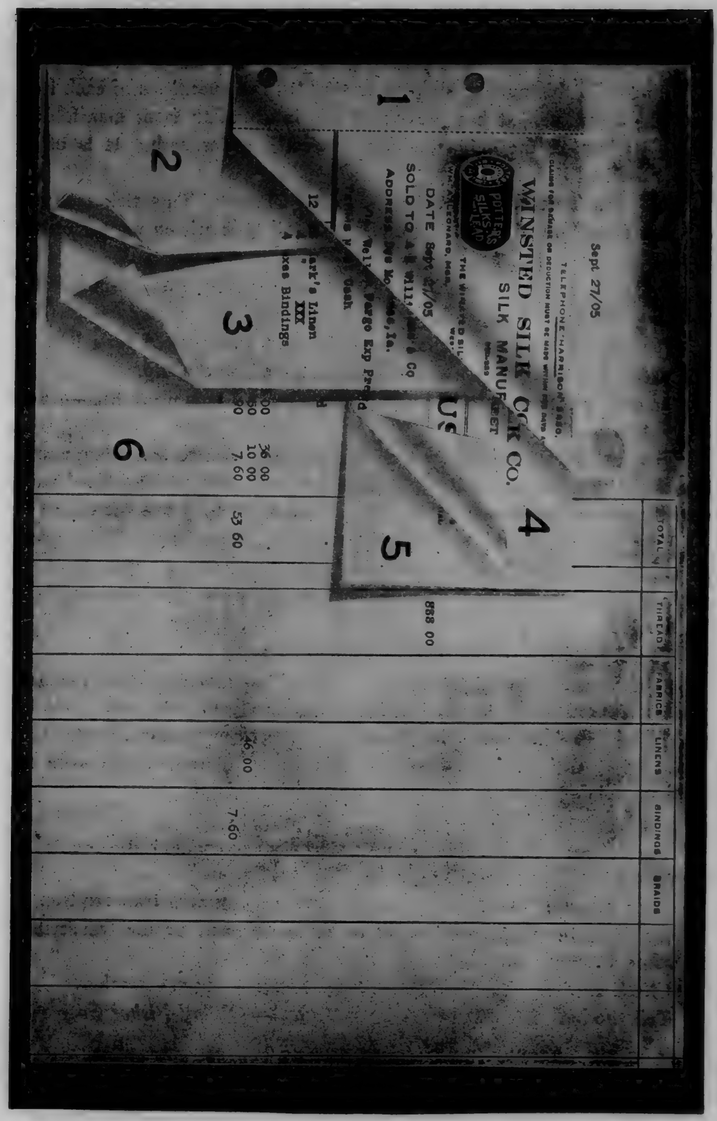
Express Receipt—Same dimensions as the express label, but with different printed matter thereon.

The above sheets are placed on, and held by sliding bill holder and instantly brought to proper position on sales sheet (under charge preceding).

The bill clerk then transcribes the goods on order to be charged, with billing machine.







INTENTIONAL SECOND EXPOSURE



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Shipper's Ticket—As long as the invoice, and enough narrower to prevent prices from manifolding thereon.

Express Label—As wide as the invoice, but as long as the heading only.

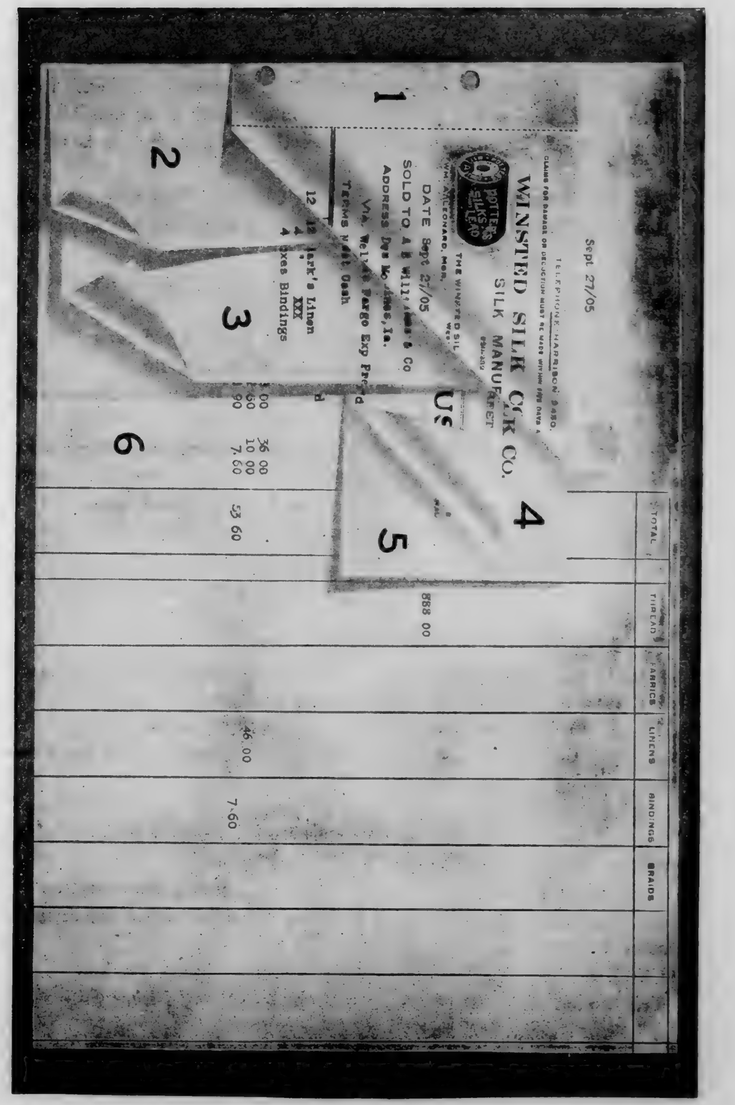
Express Receipt—Same dimensions as the express label, but with different printed matter thereon.

The above sheets are placed on, and held by sliding bill holder and instantly brought to proper position on sales sheet (under charge preceding).

The bill clerk then transcribes the goods on order to be charged, with billing machine.







All typewritten matter on invoice is manifolded on to the large sales sheet; the various sheets are then ready to be distributed:

Invoice—To be mailed or packed with goods in a sealed envelope.

Blind—On this narrow strip is manifolded the quantities of each item charged on invoice. It has prevented this information from manifolding and appearing on the shipper's ticket directly underneath. It is of no further use and is destroyed.

Shipper's Ticket—Here's the "Positive Check." This ticket shows, with the exception of quantities and prices, all typewritten matter on the invoice.

The packer (who acts as shipper) sees to whom the goods go—the kind of goods—but the quantity column is blank.

That necessitates the packer counting the quantity of each item of each order, and marking his count down in pencil on the slip.

He can't guess somebody else's count is right. It is up to him—where it ought to be.

The packer (shipper) returns all his shipper's tickets with his quantity figures thereon, to the office, and they are then compared by a third party with the quantities shown on the large sales sheet to prove the count.

Express Label—All ready to be pasted on the package. If the goods are charged for Danville, Ill., the packer (shipper) has no opportunity of sending it to Danville, Ind., because the label is made simultaneousy with the invoice.

Express Receipt—The term is self-explanatory.

Sales Sheet—This sheet stays in the billing machine until the page (both sides are used) is full. It is then properly filed in locked binder. The billing machine operator can tabulate the classification of sales with the machine, in the columns on the right of total column, or this work can be done later with pen.

Resumé—Plan "Cut Corners."

Figure out how to make extra records when making the invoice or the order.

How to save time and errors by preventing useless transcription.

Manifold in triplicate—instead of three different people transcribing the same information.

Check automatically one man or department, against another.

Tell the boss about it before he tells you!—*(Elliott-Fisher Co.)*

(261) BILLING AND JOURNALIZING FOR DEPARTMENT STORES.

Salesmen's tickets, after being checked off on sales books and credited





to the various departments, are passed to the billing clerk, who bills and journalizing at one operation.

It will be necessary in this method to employ the loose leaf ledger with marginal index. First, the tickets are sorted alphabetically, and if more than one ledger is used, then the tickets belonging to each ledger must also be kept separate, in three divisions of the index, or three volumes thus: No. 1, A to H; No. 2, I to N; No. 3, O to Z. Three corresponding piles of tickets must be kept also.

Then, beginning with "A," the tickets belonging to "Mr. Adams" are placed together, the amount of each ticket being copied on one ticket and crossed out (not erased) from the others. This total figure on Adams' tickets is the amount of the charge to be posted to his account for this day. If a credit ticket is found for goods returned by Adams, this must be entered to his credit on the ledger, and billed as a separate entry. For this purpose it is preferable to use a two-color ribbon on billing-machines, showing all credits in red.

After arranging Adams' tickets, they are laid face down on the desk, and in this manner the whole alphabet is run through.

It is now preferable to post these amounts to the ledger before billing. Care on the part of the ledger clerk or book-keeper to keep all tickets in alphabetical order will greatly assist in the billing.

There are several methods of billing the charges. In retail stores where itemized bills are sent to the customers only once a month, a large bill head may be used, and after billing each day's charges the bill may be placed in a vertical file in readiness for reference at any time or for next day's billing. Thus the whole sheet may be filed, both sides if necessary.

In this method of billing only the total footing on each customer's tickets and posted to the ledger, is carried to the total column of the bill.

The journalizing is accomplished by means of a duplicate sheet attached to the original, and the use of the carbon paper. The best method of billing is with a machine which permits the use of a carbon roll, running between original and duplicate.

MUST CARRY THE TOTALS.

In any method of billing, the operator must carry the total of the day's charges for each customer to a recapitulation sheet for the purpose of arriving at the total of the day's charges to be passed to the credit of merchandise.

Before posting the day's total to merchandise credit, the day's work should be proved. The following method is effective. The billing clerk takes the salesman's tickets and the bill he has made; the book-keeper

takes the narrow total ribbon, and the ledger. The clerk now calls the name of the customer and amount of the charge from the ticket, comparing same with the bill. The book-keeper turns to the ledger account, checking the entry with a hard pencil, and also checking the amount on the ribbon. In this manner a double check is effected, and should be an absolute proof of the day's posting.

Now the total of the ribbon sheet is obtained and this amount passed to merchandise credit. If a record of the charge sales of each department is kept, the total of these departments should agree with the amount credited to merchandise. This serves as an additional check, and guards against the loss or misreading of any ticket.

Another method of passing sales to merchandise credit is to enter each day's total on a recapitulation sheet, and post the grand total only once a month. In case of several divisions or volumes of the ledger, each section must be kept separate on the recapitulation sheet and ribbon, thus dividing the work and furnishing a means of balancing each division independently of the others.

Each day's tickets should be securely tied or fastened together and filed in a convenient drawer for reference. The total ribbons should also be kept at hand until after the periodical balance is taken.—*(C. L. Cook.)*

### (262) A QUESTION ABOUT DEPARTMENT STORE BILLING.

THE QUESTION. I want you to help me out in getting up a system to offset the one I will outline to you, which is a very roundabout one, I think. The business is wholesale and retail dry goods, the bulk of the business the latter (retail). Cards are numbered, and kept in numerical order. The sales are classified as charge, c. o. d and memorandum (goods sent on approval). The process through which the tickets pass is this: From salesman to office, to be stamped, some tickets are stamped "charge" and some "c. o. d." (memo. special color) original remains in office, duplicate goes to salesman again and he sends it with his goods to the "shipping room;" the following morning all tickets of the previous day are collected, matched together by department number (16 departments), then salesman's number in department; when all are in and matched together, original and duplicate, they are numbered alike with a Bates numbering machine.

Then they are given to a boy who looks up the reference of each on index and puts the account number on them; those without a number are given to the credit man, who passes on the reference if new and puts the limit on it and numbers the reference and the new account card alike.





When finished all are passed to a girl who sorts them out according to the serial number (the number stamped on them by the first girl, commencing with No. 1 each month), when she finds she has all the numbered tickets for that day, she arranges them according to the account numbers from No. 1 account on, first the charges and second the charge account credits, next the c. o. d.'s and c. o. d. credits (each c. o. d. is opened on a small card, and of course this card is used for all future c. o. d.'s to the party), and then the memos and memo. credits.

A young man takes them next and adds them up on the adding machine, and the amount of each bunch taken, charges and charge credits, c. o. d.'s and credits, and memos and memo. credits.

From him they go to the girls operating the Fisher billing machines; when they are finished, the young man takes the statement forms just finished by the girls, and adds up their entries of the day thereon, and the total should equal the amount of his list just drawn off before he gave the girls the tickets to enter from.

He next passes the tickets to a girl who takes out the account cards according to the account number placed thereon, and they go to other girls for posting; when they are finished the young man adds up their entries on the cards to catch any errors, and gets the total postings equal to his first adding up list.

Then the cards are filed away again in their numerical order.

According to the present mode of doing things, all accounts unpaid at the end of the month are made out in full again, and the current month's entries put at the bottom of the statement, so that if the account is running several months a full itemized account is sent each month, entailing a lot of extra work.

THE ANSWER. I have carefully read your description of the system for handling charge tickets in a retail dry goods business. The system seems to be all right up to the point where the boy looks up the reference index and places the account number on the ticket. I would strongly recommend changing the manner of indexing to alphabetical, arranging the account cards in strict alphabetical order. Any card manufacturer can supply you with sets of index guides subdividing the alphabet into as many as 1,500 subdivisions As you can easily handle 15 cards between each two index guides such an index would accommodate 22,000 accounts. Changing the alphabetical indexing would do away with this operation entirely.

After being collected by departments and duplicates matched they would be numbered serially and go to the next sorter in that order. When she ascertains that no numbers are missing, she would re-arrange the

tickets, as is now done, keeping charges and c. o. d.'s together. They would then be footed on the adding machine, as at present, and go to the girls operating the billing machines.

The statements should be in duplicate, one copy having a wider margin and punched for permanent filing in a loose leaf binder. I would also recommend using a carbon roll on your adding machine, as this gives you a separate checking list like the tape from an adding machine, showing totals of each ticket. The statement should now be printed and totals compared with totals obtained when listing the individual tickets on the adding machine. If the totals agree it is proof conclusive that the amounts entered on the statements are correct; if there is an error a comparison of the first tape from the adding machine with the carbon roll taken from the billing machine will quickly locate it.

I can see no necessity for posting the totals of these tickets on the ledger cards each day. Why not wait until the end of the month, and then post to each account the totals shown by the statement. Remember you will have left in the permanent binder copies of all statements for the month, so that items can be located very readily. This would cut out another operation which seems to me to be entirely unnecessary. I can see no good reason for making an itemized statement each month covering items prior to current month. The best plan would be to start your statement at the beginning of the month with the balance shown on the ledger card; then all items for that month will be added—both debit and credit—and after having this itemized statement once very few customers will demand it the second time. In expectional cases where such demand is made you will always have your copy in the file from which another statement can be made.

### (263) TYPEWRITER BILLING HAS HELPED BUSINESS BUILDING.

SYSTEM: "An assemblage of things adjusted into a regular whole; or a whole plan or scheme consisting of many parts connected in such a manner as to create a chain of mutual dependencies; or a regular union of principles or parts forming one entire thing."—Webster's Dictionary.

If you will make a careful study of the system, then read the different articles published upon this subject in the various magazines, you will ascertain that people entertain different ideas about system as well as others differ in their ideas regarding architecture, music, etc., but from the definition of the word we have a foundation upon which we may develop our individual ideas and suggestions of which are applicable to the billing machine.

With the great capacity for such machines, which have greatly facili-





tated the handling of bills, orders, etc., with forms properly designed for the character of work intended, we find an extensive field for system work in the designing of these forms to secure the best results, and in view of this fact, it is essential that we acquire a general knowledge of the rudiments of book-keeping or at least become familiar with the nature of the accounts of which a written record is made upon the typewriter in order that we may suggest a practical system which will embody its two most important factors,—elimination and concentration,—the results of which promote economy, diminish temptation, lessen litigation, and enable persons at all times to ascertain their situation from a pecuniary standpoint.

Today we are recording nearly all transactions upon the typewriter, thereby discarding the pen and our old-fashioned bound books are being replaced by loose leaf sales books, record books and ledgers.

Heretofore we may have been entering all business transactions in a bound day book with pen in the order in which they occurred, after which the debits and credits of the accounts were entered in the journal in the order of the dates from which they were posted to the ledger; but, under the new method of handling these transactions, we eliminate the use of the day book, thereby eliminating much unnecessary journalizing.

We may have been making a record of all requisitions in a bound invoice book with pen, but from the fact that we may make as many copies of the original as we wish with but one writing, we make same out in triplicate. The original is sent to the party or individual from whom we are purchasing; the second copy is placed on file as an office record, and the third copy is sent to the receiving department. Upon the arrival of the goods, this department checks same against slips, registers date of reception, etc., returns slip to the office, where it is checked against the office copy, which is compared with the invoice when same is received.

Result:—Elimination of the bound invoice book. Typewritten record of transactions.

We may have been entering all orders received in a bound order book, but, under the new method, instead of entering the same in a bound order book, we enter order upon a set of unit forms designed for this purpose, making as many copies as will facilitate the handling of that particular transaction. The original we will call our order book record which is placed on file, and is a record of the order, complete. The second copy is generally an office copy or price sheet; the remaining copies may consist of an acknowledgment, requisitions, salesman's notice, packer's slip, shipping memorandum, etc., and are distributed to the various departments after the order is entered.

Our order book copy is filed numerically; the office copy is filed alphabetically, first, in an unfilled order binder and then transferred to a filled order binder after the transaction is completed. The acknowledgment is mailed to the customer, while the requisitions are utilized for picking up the goods in the various departments. The salesman's record is oftentimes filed territorially, and is used as an automatic check against the bills rendered, the amounts which have reached the ledger and the filled order binder.

In this manner, we secure an automatic check without resorting to recapitulation. As the shipping memorandum is filed chronologically it is an easy matter to look up an order either through its number, name of the customer or through the salesman who sold the articles or through date of shipment.

These unit forms are so designed that each contain the information required by its respective department. After the requisitions pick up the goods, they are checked and the goods forwarded to the shipping department.

The articles are checked against the shipper's ticket, after which it is returned to the office and checked against the office copy.

Result:—Elimination of the bound order book.

After the extensions are made upon the price sheet which has been retained in the office for that purpose the order department has finished with the order. It is then turned over to the biller, who makes a typewritten copy of the sale or shipment upon an invoice blank and at the same time making a record of same upon a loose leaf sales sheet at one writing.

Result:—Elimination of the bound sales book. Introduction of the loose leaf typewritten sales book.

As each sale or shipment is consecutively numbered, it is an easy matter to quickly refer to same when receiving remittances covering any particular shipment to compare same, also for complete data when a duplicate shipment is requested.

The sales sheet may contain the quantity, description, amount, and total column only; but, in addition, it may contain a number of disintegration columns in which sales may be classified according to departments or ledgers.—*(H. S. Lasher.)*

### (264) BILLS PAYABLE.

A ledger account showing in detail or in totals the amount of bills payable issued in settlement of liabilities; the amounts paid on same and balance due.





### (265) BILLS PAYABLE REGISTER.

The method of keeping bills receivable, as described under that heading, is appropriate also to the record of bills payable.

### (266) BILLS RECEIVABLE.

A ledger account showing in detail or in totals the amounts of bills, promissory notes, etc., received from customers or debtors; the amount paid on same and balance outstanding.

The proper manipulation of bills receivable account and bills receivable register, or record, is so closely interwoven that it is necessary to treat them together. The proper end in view is to devise a system that shall always give complete information promptly when required and dispense with needless labor. Many plans have been evolved to accomplish this, including the combination in one book of the features of register and ledger. This will be considered later on under the head of "Bills Receivable Ledger."

Where the ordinary bills receivable account is carried in the ledger, we would recommend the use of key numbers instead of endeavoring to

*Bills Receivable %*

| Dr. A | | | | B | | | C | | | | D | Cr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | No. | Name | Folio | Key | Amount | Date | No. | Name | Folio | Key | Amount | |
| 1900 July | 1 | 1 | Cudahy | 30 | | 100 00 | 1900 Aug | 8 | 1 | Wm Brown | 36 | 3 | 300 00 |
| | 2 | 2 | C.D. Smith | 32 | | 400 00 | Sep | 4 | 2 | Ackerman | 60 | 2 | 700 00 |
| | 8 | 3 | Wm Brown | 36 | 1 | 300 00 | Oct | 3 | 3 | | 80 | 5 | 500 00 |
| Aug | 3 | 4 | T. Titus | 49 | | 800 00 | | | 4 | Balance | | | 1300 00 |
| | 4 | 5 | Ackerman | 32 | 2 | 700 00 | | | 5 | | | | |
| Sep | 3 | 6 | | 70 | 3 | 500 00 | | | 6 | | | | |
| | | | | | | $2800 00 | | | | | | | $2800 00 |

write the credit directly opposite the charge when the bill is paid. The latter method results in great inconvenience when taking off the trial balance, which is entirely obviated by the use of key numbers. We append an example of bills receivable account to illustrate the idea.

You will observe that there are two sets of key numbers. One set refers exclusively to the credits. The other set is intended to facilitate easy reference to either debits or credits. Thus Mr. Brown is No. 3, and by referring to the credit column you will find Mr. Brown's payment No. 3, but all the credits are also consecutively numbered, and Mr. Brown is No. 1. Therefore, if anyone refers to the credit side and finds Mr. Brown is No. 1, they will look to the debit side key No. 1 as to why the payment was made.

(See Notes Receivable.)

### (267) BILLS RECEIVABLE REGISTER AND LEDGER.

One of the best devices for taking care of bills receivable with the least possible amount of trouble. While the form of such a combination

book would necessarily be changed to meet the different requirements, the principle is the same, namely, the addition of two money columns to the ordinary bill book, one being headed credits and the other balance. This practically eliminates the ordinary bills receivable account from the ledger,

as the only postings are made to an account called bills receivable ledger account, to which at the close of each month are posted the total bills received and the total credits. For the efficient use of this method separate columns should be provided for bills receivable in the cash book and journal. The totals of these columns can then be compared with the total debits of the bills receivable register as a check on the accuracy of the work. The postings to the credit of bills receivable ledger account in the general ledger will also be made at the end of each month from the columns provided in cash book and journal. By this method the bills receivable ledger does not enter into the trial balance at all, being represented therein by the balance of the bills receivable ledger account above mentioned. Example of such a ledger is appended.

For the purpose of facilitating the obtaining of the total credits for the month many accountants use a form provided with twelve credit columns, one for each month in the year, transferring unpaid notes at the end of the year.

### (268) BILLS RECEIVABLE SUSPENSE ACCOUNT.

An account to which are transferred doubtful or uncollectible bills receivable, in which account they are retained until it is decided to charge them off to profit and loss.

### (269) BILL OF SALE.

A written agreement under seal, by which one person transfers his rights to or interest in goods and personal property to another. It is especially used where immediate possession of the goods or chattels cannot be given.

### (270) BLANK INDORSEMENT.

The indorsement of a check across the back simply with the name of the person to whom the check is made payable.





### (271) BLANKET MORTGAGE.

A general mortgage on all the property of a concern given to further secure bonds already partly secured, to obtain further loans, or secure a reduction of interest.

### (272) BLOTTER.

A term used to signify a rough book of original entry, from which the entries are subsequently copied into another record from which postings are made. Blotters are commonly used for entering sales, orders, cash receipts and payments, etc.

The use of blotters for cash receipts and payments is particularly inadvisable, as it facilitates fraud. (See auditing and also cash). For the entry of sales and orders they appear under some circumstances to be unavoidable, and in such cases are merely a form of memoranda.

### (273) BOND OR DEBENTURE.

A form of negotiable commercial currency issued chiefly by corporations, municipalities, states and governments, but payable on a specified date instead of on demand, and secured by mortgages, reserve, or sinking fund.

An obligation for the faithful performance of duty or service, secured by property or substantial guarantors.

Different varieties of bonds will be described under the headings of coupon, debenture, preferred, dividend, mortgage, registered, guaranty, maritime, municipal, income, etc.

Bonds are generally placed on the public market for sale through the medium of a trust company or trustees to whom the mortgage security is executed. As bonds are sold, the amount realized on their sale is charged to cash and the liability credited to bonds payable account.

If bonds are sold at a premium the amount of the "premium" will be credited to bonds premium account and go into profit and loss at the close of the financial year. In like manner if bonds are sold at a discount, the discount is charged to bond discount account, and subsequently transferred to the debit of profit and loss account.

### (274) COUPON BONDS.

Bonds to which are attached interest coupons, said coupons to be detached and presented for payment, with interest.

(275) COUPONS.

A detachable certificate attached to a bond, debenture, or strip, each representing an instalment of interest, to be detached for collection as the instalment falls due.

A ticket exchangeable for cash or goods.

Those parts of a commercial instrument which are to be cut, and which are evidence of something connected with the contract mentioned in the instrument. They are generally attached to bonds or certificates of loan where the interest is payable at particular periods, and, when the interest is paid, they are cut off and delivered to the payor. In the United States they have been held to be negotiable instruments, if payable to bearer or order, upon which suit may be brought, though detached from the bond. If the bond to which the coupons were attached was not negotiable, or if the coupons were not payable to bearer or order, then they would not be considered negotiable instruments nor could suit be brought.

Interest on coupons may be recovered in a suit on the coupons and the rate of interest provided for in the bond continues on the coupon until it is merged in judgment. A suit on the coupon is not barred by the statute of limitations unless a suit on the bond would be barred; otherwise, however, where the coupons have passed into the hands of a party who does not hold the bonds.

(276) DEFERRED BONDS.

Bonds, the redemption of which is contingent on the realization of some condition or future eventuality.

(277) DEBENTURES.

"A debenture is a document admitting an indebtedness. The term is ordinarily applied to the acknowledgment given by a limited company of a loan which it has received, upon which it undertakes to pay interest periodically, and to repay principal upon such terms as may be set forth in the body thereof."

"A mortgage debenture is a debenture giving to the inscribed holder thereof, or to bearer, as the case may be, a charge upon certain assets of the company which rank in priority to all other claims."

Bonds issued for sale for the purpose of securing working capital, the interest on which is a first charge on profits, i. e., in priority to preferred or other dividends.

When secured by mortgage, they are termed mortgage debentures, but when not secured by mortgage, there is generally a "floating charge" upon the





business under which, if the debentures are not paid when redeemable, the holders may apply for a receiver and have their claims scheduled as preferences in the winding up of the business.

(278) DEBENTURES, ACCOUNTS AND RECORDS OF.

A method recommended for dealing with redeemable debentures on the books of account is to charge cash and credit debentures account when the same are issued and sold. If a sinking fund is provided for the repayment of the debentures, charge debenture account and credit cash as paid, also charge profit and loss and credit debentures redeemable account. When the repayments have been completed debenture account will be closed, but the full amount of the debentures will stand to the credit of debentures redeemable account, offsetting the amounts charged to profit and loss. The amount to the credit of debentures redeemable account now stands as a reserve, and would be available for distribution if sufficient funds were on hand for the purpose. Cash was received (less cost of issue and sale) for the amount of the debentures issued and cash was paid out for same when due, so that the actual profits of the business were not really affected, except so far as regards loss on discount or cost of issue as above stated.

MUNICIPAL DEBENTURES.

Millions of dollars' worth of debentures are handled annually throughout the country. And the methods of recording these, with the coupons that are usually attached, are almost as numerous as are the issuing bodies. The purpose at this time is to discuss the subject of municipal debentures, outlining what is conceived to be the best procedure on the part of the treasurer, from the inception of the work for which the debentures are issued, or to be issued, up to the payment thereof, and incidentally to discuss the best form of debenture to issue.

When a public work has been decided upon, the necessary authority or consent having been duly obtained, there are two methods which may be followed in order that funds may be provided for the carrying on of the work, (1) by issuing debentures and disposing of the same in bulk right at the outset of the undertaking, or by partial sales from time to time as the necessity requires, or (2) by effecting temporary loans as the work progresses, charging capital or construction account with the interest on these loans, to be offset later on by the interest which will have accrued upon the debentures if they are dated concurrently with the initiation of the work.

In many instances it is impossible to tell at the outset just how much the expenditures are likely to amount to on a contemplated work. The architect

or engineer will furnish an estimate (generally an outside figure), and upon this is based the amount upon which authority is given for the issue of debentures. It may be that when the tenders are called for that much less money than suggested by the architect's or engineer's estimate will be required to accomplish the purpose; and, if so, then it will not be necessary to issue debentures up to the authorized limit. The method of providing the requisite funds by temporary loan would seem to be preferable, if only for this reason; but where the work under construction is of the nature of a local improvement (part to be paid by the municipality or corporation and part by the owners of the property to be benefited by the work) there is an added reason for refraining from issuing the debentures until the completion of the work. In a case such as mentioned the construction of the improvement is in the nature of a partnership, and, properly, the greatest care should be taken to keep the transaction separate and free from other matters of a like nature, and from works where only the corporation is interested. The word "properly" is used advisedly, for, unfortunately, the average municipal official is not careful in this regard, and works are often undertaken and carried to completion, moneys advanced, and debentures sold, without the slightest regard being paid to the equities of the various interests concerned.

The simplest way of handling any matter is almost always the best, and the plan outlined below will be admitted to have the advantage of simplicity. Supposing that the improvement has been decided on, and the preparation for the work of construction is all completed, and awaiting the provision of the necessary funds. With a certified copy of the by-laws the treasurer applies to the corporation bankers for a special line of credit sufficient to meet the cost of the undertaking in question, agreeing to pay interest at a rate to be agreed upon, on all sums used, which interest shall be charged to this especial work. A special account is then opened by the banker for this particular work, and the interest is calculated at the usual bank periods. When the work has been completed and all claims for the construction of the same have been duly passed and paid, the time for the disposal of the debentures will have arrived. Debentures to the exact amount required to reimburse the bankers for advances will then be prepared and offered for sale. Just here it may be interjected that many municipalities are in the habit of issuing debentures bearing a higher rate of interest than the money can be obtained for. This is done in order that a good premium for the debentures may be obtained, the officials laboring under the impression that the obtaining of big premiums gives the public a more favorable idea of the excellence of the credit which the municipalities enjoy in the financial world. This is a false idea, and the sooner eliminated the better for all concerned. A careful study of the money markets at the time the debentures are ripe for sale will enable the official charged with





their disposal to decide pretty accurately upon the lowest rate of interest which the debentures can be made to bear, in order to dispose of them at par. A low rate of interest and no premium is much preferable to a big premium with a corresponding increase in the interest rate. As a matter of fact, investors take advantage of the ignorance of officials in calculations of this character, and, under the cloak of an apparently large premium, they pay less for the debentures than if they had been compelled to bid on an issue bearing the current rate of interest and netting "par." There is also a greater evil than this in connection with this question of "premiums." The majority of councils and officials have the mistaken idea that a premium obtained from the sale of debentures is the common property of the municipality, and not of the corporation and property owners who are to be espeically taxed to meet the debentures. The consequence is that the general funds receive the advantage of the premium derived from the sale of the debentures, while the property owners pay the "piper." It is obvious, therefore, that the obtaining of a premium is not always a benefit to those immediately concerned.

The natural application of any premium or surplus arising out of the sale of debentures is toward payment of the first principal or interest which falls due on account of these particular debentures, a pro rate reduction being made in the assessment against the property holders for that particular year.

### SINKING FUND OR SLIDING SCALE DEBENTURE—WHICH?

The best kind of debentures to issue is open to debate. Which shall they be—"sinking fund" or on the "instalment" or "sliding scale" plan? It may be well to explain the exact differences between the classes of debentures referred to.

In the case of "sinking fund" debentures, no part of the principal is repaid to the holder or purchaser during the currency of the debentures. The full amount of interest and a portion of the principal is annually collected. The interest is paid to the debenture holder. The principal is paid into an account known as the sinking fund, which fund must be made to earn a rate of interest equal to that figured on at the time of issuing, and this is compounded yearly during the whole period of existence of the debenture debt, so that at maturity of the debentures there will be in this fund just sufficient to repay the principal. With the rates of interest varying, it so happens that often it is not possible to make the sinking fund earn the amount contemplated, or it may be that too high a rate of interest was allowed in the calculation. There are two ways of overcoming this difficulty when it is met with. Each year, before placing in the estimates the amount required to be raised for the sinking fund, a valuation should be made to ascertain whether the existing investments have amounted to the sum originally intended as that which should be on hand at that date. If

deficient, it must be augmented by adding the necessary amount to the ordinary yearly appropriation. If it be found that the rate of interest being realized is less than that assumed in making the original computation, and is likely to continue so, then the annual amount to be set aside as sinking fund must be re-estimated on the basis of the decreased rate of interest. If it be the case that a municipality has neglected these precautions for some years, it would be well in such instances to cover the whole of the ascertained deficiency in the computation of the necessary annual amount in the future. If these precautions are taken, and fractional adjustments are made from year to year, there will be no possibility of finding the sinking fund short when the debentures mature.

The common practice is to calculate the interest-earning power of the sinking fund at the same rate as the debentures bear, and this is the pit into which so many municipalities find that they have stumbled. There are many reasons why it is not possible to make the sinking fund earn interest equal to the rate of interest which must be paid on the debentures, chief among which is lack of investment. The amounts being small and accumulating annually, it is impossible to keep the fund continually invested at a rate of interest higher than that which can be obtained by deposit in the ordinary savings bank. It follows, logically, then, that no matter what rate of interest it may be necessary to make the debentures bear, the sinking fund's interest-earning power should not be calculated at a rate of interest higher than the substantial savings banks of the country are in the habit of paying.

The "instalment" or "sliding scale" debentures are figured out so that equal payments during the period which the debentures have to run of principal and interest, will be made. The first year's payment will obviously be largely interest and very little principal. The second, a little less interest and more principal. Each year the interest decreases and the principal increases, until in the final year the payment is mostly principal. It will be observed that the difference between the two forms of debentures is, that in the first case the investor accepts only the interest earned each year, leaving the principal in the hands of the municipality for reinvestment. In the second case the investor finds himself under the necessity of finding his own source of reinvestment for the principal which he receives year by year.

The idea of sinking fund debentures originated in the fact that investors were averse to buying debentures which provided for the return yearly of a portion of the principal, necessitating the trouble of the reinvestment of small amounts. At any rate, debentures of such a character brought a less price in the market, and hence the introduction of the sinking fund idea, which placed the burden of reinvestment upon the shoulders of the persons or corporations making the loan, thus giving the capitalist the advantage of a longer and, to





to him, more satisfactory investment. This condition of affairs originated when rates of interest were much higher than now and money was less plentiful. The day of the sinking fund is past, however, the difference in the price obtainable for debentures of the two kinds being so slight, that the trouble of maintaining the sinking fund largely exceeds the paltry difference in the proceeds of the sales. With a thorough sense of the responsibility attaching to the position which I take, I have no hesitation in saying that the sinking fund is a curse to the average municipality. Lack of knowledge of finances, inability to keep the sinking fund profitably invested, the manipulation of the fund by designing and dishonest officials, ignorance in computing the earning power—these are principally the causes which lead to the conclusion voiced in the preceding sentence. In these days of cheap money, with capitalists on the alert for safe investments, and with the keen competition that exists in the money market, the kind of debentures issued makes very little difference in the price received.

The debentures being ready for sale, with the coupons (if coupons are used) attached, they are offered to the investing public, either privately or by advertisement. Usually the highest bidder is the successful one. Before the debentures leave the hands of the treasurer all the particulars relative to them should be entered in the record book or debenture register of the municipality. Full details are entered concerning the issuance of the debentures, the amount, years to run, dates payable, place of payment, annual payment of principal and annual payments of interest as represented by the coupons, dates due, and payments to the sinking fund when the debentures are issued upon that plan. Other particulars as to the number of the by-law, authorizing the issue, date of sale, persons to whom sold, date of delivery, amount received, divided as to principal, premium and accrued interest. Then the total amount to be raised annually by assessment, with particulars as to how much is chargeable to the corporation as a whole, and to the individual property owners in case the work is in the nature of a local improvement.

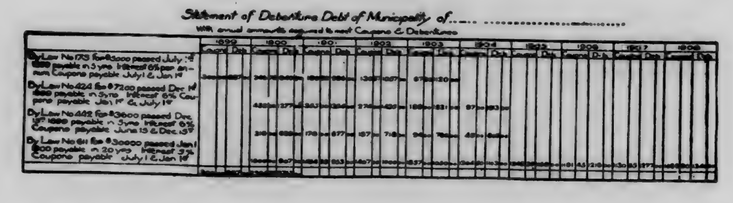
As already stated, the entries in this register should be made before the debentures leave the possession of the treasurer. Upon receiving the proceeds of the sale the necessary entry is at once made in the cash book, debiting cash and crediting the particular work upon account of which the debentures were sold.

To enable the treasurer to get at the total debentures debt of the municipality as it matures, year by year, or to ascertain the gross amount of the debenture liability, a further subsidiary book containing in abstract all debentures and coupons will be found of great convenience. A book of this description will require very few pages, and by using the wide-and-narrow leaf, can be made continuous. A handy official can prepare such a book himself. There

has been published a book along the line suggested, which contains a complete statement in abstract of all the debentures and coupons issued by a corporation between the years 1882 and 1914, and it can be extended indefinitely.

As debentures and coupons are paid, cash is credited and debenture and interest accounts are debited respectively, and these are closed into the municipality account annually.

The careful keeping of matured and paid coupons and debentures should be a matter of considerable moment to the treasurer, but in many cases the proper precautions are not taken. Occasionally an official is to be found who has devoted some thought to matters of this sort. About as ingenious a method of retaining these canceled coupons and debentures as I have yet seen I came across in a small town in western Ontario a short while ago while engaged upon an inquiry into the finances of the municipality. A large book, similar to the ordinary invoice book used in the commercial world, was specially ruled as shown, arranged to accommodate twenty coupons.




As the coupons matured and were paid and canceled, they were pasted in the book upon the block corresponding to the number (the highest number maturing first). When the final payment was made and the debentures redeemed, the page contained the completed debenture and all the coupons, duly canceled.—(*F. H. Macpherson, C. A.*)

### (279) DEBENTURES SOLD AT A DISCOUNT.

In such cases the amount of the debentures can be entered on the books, less the discount, or the discount can be spread over the term of years for which the debentures are issued, either method being considered allowable. In the latter case, the discount on the debenture is treated as a preliminary expense of the incorporation and gradually written off from subsequent profits.

In the case of redeemable debentures (payable at the end of a specified term of years), discount and brokerage must be provided for by a charge to profit and loss, which, however, can be spread over the term of years covered by the debentures.





### (280) INDORSED BONDS.

A term used on the stock exchange to signify bonds indorsed by transfers, assignments, releases, etc.

### (281) GUARANTEED BOND.

An undertaking made by one party for the faithful performance by another party of some service or trust, and to make good any loss or damage resulting in case of the failure of the said second party to faithfully discharge said service or trust.

Such bonds are frequently required in cases of cashiers, secretaries, treasurers, etc., and are now usually furnished by insurance corporations or bonding companies organized to undertake such responsibilities or liabilities at certain specified rates or premiums.

### (282) INCOME BONDS.

Bonds on which interest is paid by way of dividend, or out of profits, same being non-cumulative—i. e., if the interest is passed on account of there being nothing with which to pay same, the holders of the bonds have no claim.

### (283) MORTGAGE BOND.

A bond issued by a corporation secured by mortgage upon real or personal property to insure its redemption. Prior to issuing such bonds it is necessary to obtain the written assent of stockholders representing two-thirds of the stock.

A first mortgage bond must be redeemed in full before any payments can be applied to the redemption of second mortgage bonds.

### (284) MUNICIPAL BONDS.

(See Debentures.)

### (285) REGISTERED BOND.

A bond payable to order of holder and non-transferable except under assignment duly acknowledged.

### (286) BONUS.

A present, or donation, by a corporation in consideration of services or value received, or to a corporation in the shape of stock to be sold in order to raise working capital. In the first case, the amount may be car-

ried in a bonus account, to be either closed into profit and loss at the end of the fiscal period or distributed over a number of years, so that the full amount may not be a charge on the first year's profits. The latter course is usually adopted in the case of expenses on account of organization. Bonuses of this kind are sometimes paid in stock of the company, the value of which must be disposed of in a similar manner. It has been suggested that where the directors of a corporation do not desire to show a bonus account on their books, the assets of the company should be inflated sufficiently to cover the amount, but such a course cannot be recommended or sanctioned by good accountants.

In the second case illustrated, it is usual to carry stock donated in the treasury stock account until sold, crediting same to an account called "Working Capital." As the stock is sold cash is debited and treasury stock account credited.

### (287) BOOK ACCOUNT.

A ledger account. An account receivable (generally).

### (288) BOOK DEBT.

An account receivable.

### (289) BOOK-KEEPER.

A person appointed to take care of the books and accounts of a business.

While a great deal of good advice has from time to time been given the book-keeper as to what he should do on entering upon his duties, in the way of verifying the books, cash, assets and liabilities, etc., the average book-keeper will find that his employers do not expect him to take an inventory of the business immediately upon commencing his duties, and would resent any attempt on his part to do so. We recommend, therefore, that the book-keeper should inventory the cash, reconcile the bank account with outstanding checks, and take off an independent trial balance. If the trial balance does not agree he should report the fact to his employers, and by means of an error account establish a balance, carrying the difference in the error account until such time as he has had an opportunity to trace the cause of the difference or differences. The new book-keeper should, of course, make a thorough study of the requirements of the business in which he is employed and of the methods in use, formulate plans for improvements which will give better results and shorten labor and suggest them to his principal as soon as a favorable opportunity is





offered; thus calling attention to his capabilities without causing his employers irritation or annoyance.

The book-keeper should always recollect that no matter what system is employed, it is within his power to make sure of the accuracy of his own work. In the case of a corporation where a number of individual ledgers are kept and in which adjustment or controlling accounts are kept in a private ledger, with each individual ledger the book-keeper has only to establish an arbitrary balance in the first place, debiting and crediting a memorandum account with all the postings that go into his ledger from time to time, taking these debits and credits from the totals of the books from which he posts. In this way, the book-keeper can make his own balance of his own ledger whenever he pleases, and is entirely independent of the private ledger so far as the proof of the correctness of his own work is concerned.

### (290) BOOK-KEEPING.

The science of correctly recording business transactions connected with the exchange of values.

The following points are considered of great importance to the book-keeper, who is recommended to bear them constantly in mind if he wishes to thoroughly understand the "why and the wherefore of a good system of book-keeping."

1. "That the record be so explicit that, at any subsequent time, the exact nature of the transaction may be readily perceived;

2. "That the transactions should be so classified that at any time the total result of such transactions, or any particular series thereof, during any given period may be readily ascertained;

3. "That the amount of labor necessarily involved be reduced to a minimum."

The following is quoted from a Scotch Encyclopedia of Accounting:

"Anyone engaged in business, who wishes to conduct it with ordinary intelligence and according to business methods, must keep his books so that he may get from them all the particulars and information which he requires. Among the general points are the following

1. "He requires to have a complete record of every transaction he has in connection with his business.

2. "He requires to know exactly what his obligations are, and how far his capital and credit will enable him to extend his business.

3. "He requires to ascertain the result of his commercial dealings as regards the component parts of his business and of his business as a whole.

4. "He also requires to know the position of his affairs from time to time."

Books of account may be divided into two classes, (1) the regular financial books and (2) statistical records. The regular financial books are those necessary to carry out the system of double entry, and from these are compiled the main financial statements, such as balance sheet, trading account and profit and loss account.

The books of statistical record are devised for the purpose of obtaining details of cost of production, selling and general expense, etc.

The principal financial books consist of sales book, purchase book, journal, cash book, ledgers.

Samples of statistical records are stock ledger, purchase distribution book, pay roll analysis book, sales recapitulation and distribution books, comparative statements of assets and liabilities, etc.

In this work we do not consider the so-called single entry form of book-keeping as it is not only antiquated and inefficient, but practically obsolete. Only those persons use the single entry system of book-keeping who are ignorant of the superiority and advantages of the double entry.

The great weakness of single entry is that it affords no opportunity to prove the accuracy of book-keeping records. For example, almost every business house keeps sales records of some kind, and the amounts of these sales are posted to the accounts of customers in the customers' ledger. By single entry the omission of posting whole pages of sales from a sales record to the customers' ledger would remain undetected except by accidental discovery. By a properly arranged double entry system such an expensive error could not possibly escape notice.

As this encyclopedia contains a large number of complete systems of advanced book-keeping, it is not necessary, under this heading, to give a complete exposition of the subject, but the following is an illustration of book-keeping methods and set of forms used in connection with the Preliminary Book-keeping Correspondence Course conducted by The International Accountants' Society.

### (291) THE EAGLE PRINTING COMPANY.

The Eagle Printing Company was organized Dec. 1st, 1904, with a capital of $10,000, A. Johnson subscribing $6,000 ($4,000 cash and $2,000 plant and machinery), and J. Lang subscribing $4,000 cash. Furniture and fixtures were purchased to the extent of $490, and the paper stock and shop supplies of a bankrupt printing company were purchased for $1,000 (paper $728.91, various shop supplies $271.09). It was agreed that Johnson should receive a salary of $150 and Lang a salary of $125 per month





for services. The rent of the office and shop, including power for running presses, was $100 per month.

We append particulars of the transactions for the first month, viz., sales book (showing distribution of cost of work and profit on same), schedule of purchases during month, schedule of cash receipts and expenditures, and schedule of journal entries.

The starting point of the business transactions is as follows:

STATEMENT OF ASSETS AND LIABILITIES AS AT DATE OF COMMENCEMENT OF BUSINESS, DEC. 1ST, 1904.

| Assets. | | Liabilities. |
|---|---|---|
| $6,510.00 | Cash. | |
| 2,000.00 | Plant and machinery. | |
| 1,000.00 | Shop inventory. | |
| 490.00 | Furniture and Fixtures. | |
| | Capital | $10,000.00 |
| $10,000.00 | | $10,000.00 |

SCHEDULE "A."

ACCOUNTS PAYABLE DEBITS.

W. T. McCormack $6.00, allowed to J. H. Gillett & Co. on account of poor quality of paper.

W. T. McCormack $18.00, allowed to G. W. Ammerman & Co. on account of poor quality of paper.

W. T. McCormack $18.00, allowed to J. F. Bell on account of poor quality of paper.

CUSTOMER'S ACCOUNT CREDIT.

One dollar and eighty cents allowed to W. T. Salling for overcharge.

LIST OF CASH RECEIPTS.

| | |
|---|---|
| J. H. Gillett & Co. | $ 70.65 |
| G. W. Ammerman & Co. | 712.59 |
| W. T. Baker | 1.95 |
| D. T. Gillings | 315.70 |
| W. Moore | 18.51 |
| Detroit Sanitary Supply Company | 275.49 |
| W. T. Griffin | 232.76 |
| H. T. Holbrook | 642.10 |
| W. T. Salling | 238.61 |
| W. T. Salling | 613.20 |

LIST OF DISCOUNTS ALLOWED TO CUSTOMERS.

| | |
|---|---|
| W. T. Griffin | $4.75 |
| H. T. Holbrook | 13.10 |
| W. T. Salling | 4.87 |

## Sales Record - December _____ 1904.

| Date 1904 | For Whom | Order No. | Description | Paper | Composition | Press Work | Binding | Total Cost | L. F. | Amount Charged | Profit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dec. 1 | W. F. Baker Syracuse, N.Y. | 8 | 1M Envelopes | 1 13 | 09 | 17 | | 1 39 | 7 | 1 95 | ✓ 56 |
| 1 | J. H. Gillett Co. Rochester, N.Y. | 9 | 20M Folders | 40 00 | 6 75 | 8 00 | | 54 75 | 9 | 76 65 | ✓ 21 90 |
| 2 | D. T. Gillings Buffalo, N.Y. | 10 | 100M Folders | 160 00 | 28 50 | 37 00 | | 225 50 | 13 | 315 70 | ✓ 90 20 |
| 2 | C. W. Ammerman Co. Detroit, Mich. | 11 | 250M Folders | 387 50 | 67 25 | 67 10 | | 521 85 | 18 | 730 59 | ✓ 208 74 |
| 2 | William Moore Rochester, Mich. | 12 | 500 List Blanks | 39 | 51 | 13 | | 1 03 | | | |
| | | | 1M Price Slips | 8 80 | 10 | 2 13 | | 11 16 | | | |
| | | | 10M Envelopes | 39 | 51 | 13 | | 1 03 | 12 | 18 51 | ✓ 5 29 |
| 3 | Detroit Sanitary Sup. Co. Detroit, Mich. | 13 | 30M Price Lists 28 Pages | 90 80 | 15 10 | 33 88 | 57 00 | 196 78 | 5 | 275 49 | ✓ 78 71 |
| 4 | W. T. Griffin Toledo, Ohio. | 14 | 45M 8 Page Folders | 77 19 | 8 07 | 39 00 | 45 39 | 169 65 | 11 | 237 51 | ✓ 67 86 |
| 6 | H. T. Holbrook Monroe, Mich. | 15 | 40M Report Form Blks | 294 00 | 26 00 | 108 00 | 40 00 | 468 00 | 6 | 655 20 | ✓ 187 20 |
| 8 | T. R. McGregor Detroit, Mich. | 16 | 10M Covers for Trial Bal. Book | 37 12 | 34 | 2 42 | | 39 88 | 10 | 55 83 | ✓ 15 95 |
| 9 | W. T. Salling Flint, Mich | 17 | 200M Folders | 310 40 | 57 80 | 55 00 | 190 00 | 613 20 | 8 | 858 48 | ✓ 245 28 |
| | - | | | 1407 72 | 211 11 | 353 00 | 332 39 | 2304 22 | | 3225 91 | 921 69 |





## Sales Record - December _____ 1904. 2

| Date 1904 | For Whom | Order No. | Description | Paper | Composition | Press Work | Binding | Total Cost | L. F. | Amount Charged | Profit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dec. 10 | W. F. Trascott Gilbany, N.Y. | 18 | 10M Envelopes | 11 10 | 85 | 1 60 | | 13 55 | 15 | 18 97 | ✓ 5 42 |
| 12 | J. McLaughlin Buffalo, N.Y. | 19 | 15M Folders | 33 00 | 4 82 | 7 10 | 13 00 | 57 92 | 22 | 81 09 | ✓ 23 17 |
| 13 | John T. Bell Saginaw, Mich. | 20 | 250M Folders | 387 50 | 62 00 | 35 00 | 195 00 | 679 50 | 29 | 951 30 | ✓ 271 80 |
| 15 | Geo. O. Moore Detroit, Mich. | 21 | 50 Postal Cards - Furnished | | 15 | 60 | | 75 | 17 | 1 05 | ✓ 30 |
| 17 | John T. Huber Detroit, Mich. | 22 | 500 Bill Heads | 1 08 | 67 | 75 | | 2 50 | 19 | 3 50 | ✓ 1 00 |
| 18 | W. G. Brown Detroit, Mich | 23 | 500 Bill Heads | 1 08 | 76 | 75 | | 2 59 | 30 | 3 63 | ✓ 1 04 |
| 19 | F. C. Smith Detroit, Mich. | 24 | 500 Bill Heads | 1 08 | 82 | 75 | | 2 65 | 33 | 3 71 | ✓ 1 06 |
| 21 | W. Somerville Detroit, Mich. | 25 | 500 Bill Heads | 1 08 | 87 | 75 | | 2 70 | 36 | 3 78 | ✓ 1 08 |
| 23 | Alfred Gratz Detroit, Mich | 26 | 500 Bill Heads | 1 08 | 87 | 75 | | 2 70 | | | |
| | | | 500 Envelopes | 65 | 05 | 15 | | 85 | 14 | 4 97 | ✓ 1 42 |
| 24 | D. F. Norton Detroit, Mich. | 27 | 100M Price Lists | 38 | 51 | 15 | | 1 04 | 16 | 1 46 | ✓ 42 |
| | | | | 438 03 | 72 37 | 48 35 | 208 00 | 766 75 | | 1073 16 | 306 71 |

LIST OF CASH DISBURSEMENTS.

| | |
|---|---|
| W. T. McCormack | $1,620.12 |
| Office and Supplies | 18.00 |
| Composition | 216.78 |
| Binding | 345.39 |
| Press work | 301.70 |
| Postage | 3.85 |
| Salaries | 275.00 |
| Rent and Power | 100.00 |

DISCOUNTS DEDUCTED.

W. T. McCormack ..... $85.27

SCHEDULE "B."

| | | |
|---|---|---|
| Dec. 2 | W. T. McCormack | $587.50 |
| " 2 | Page & Company | 47.83 |
| " 5 | Buffalo Ink Co. | 8.00 |
| " 12 | W. T. McCormack | 461.00 |
| " 12 | Buffalo Ink Co. | 18.00 |
| " 16 | W. T. McCormack | 310.40 |
| " 18 | Page & Company | 44.10 |
| " 19 | Page & Company | 6.43 |
| " 24 | Page & Company | 360.00 |
| " 26 | W. T. McCormack | 387.50 |

Paper Stock was purchased from W. T. McCormack; envelopes from Page & Co., ink from Buffalo Ink Co.

**Make** forms of cash book and journal and incorporate entries from schedule (A). Provide special columns in cash book for discounts.

**Illustrate** controlling account with customers' ledger and sales account.

**Submit** trial balance of work.

**Make** trading account, profit and loss account and working balance sheet.

SOLUTION.

TRIAL BALANCE, DEC. 31, '04.

| | Dr. | Cr. |
|---|---|---|
| Cash | $6,750.72 | |
| Plant and Machinery | 2,000.00 | |
| Inventory, Dec. 1 | 1,000.00 | |
| Furniture and Fixtures | 490.00 | |
| Accounts Receivable | 1,111.29 | |
| General Expense | 296.85 | |
| Rent and Power | 100.00 | |
| Discount | | $ 62.55 |
| Paper Stock | 2,163.75 | |
| Ink | 26.00 | |
| Composition | 216.78 | |





Cash Receipts / Cash Disbursements.

| Date | | L F | Discount | Accounts Receivable | General Ledger | Date | | L F | Discount | General Ledger | Expense |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dec 1 | Cash Balance | | | | 6510 00 | Dec 1 | T W McCormack | 16 | | 1620 12 | |
| " 5 | J H Gillette & Co. | 3 | | 70 65 | | " | T W McCormack | 16 | 85 27 | | |
| " 7 | C W Ammerman & Co | 8 | | 712 54 | | " 18 | Office Supplies | | | | 18 00 |
| " 8 | W T Baker | 7 | | 1 95 | | " | Composition | 21 | | 110 00 | |
| " 9 | D T Gillings | 5 | | 315 70 | | " | Bedding | 14 | | 160 00 | |
| " 9 | W Moore | 4 | | 18 51 | | " | Press Work | 18 | | 200 00 | |
| " 9 | Detroit Sanitary Sup Co. | 9 | | 275 44 | | " | Expense Postage | | | | 3 85 |
| " 10 | W T Griffin | 6 | 4 75 | 232 76 | | " 28 | Composition | 22 | | 106 78 | |
| " 12 | H T Hathbrook | 2 | 13 10 | 643 10 | | " | Press Work | 24 | | 101 70 | |
| " 16 | W T Salling | 10 | | 238 61 | | " | Binding | 23 | | 185 39 | |
| " | " | 11 | 4 87 | | | " | Rent &c | 24 | | 100 00 | |
| " 25 | " | 12 | | 613 20 | | " | Salaries | 25 | | | 275 00 |
| | | | | | | 31 | Cash Balance | | | 6750 72 | |
| | | | 27 72 | 3121 56 | 6510 00 | | | | 85 27 | 9534 71 | 296 85 |
| | | | 15 | 24 | | | | | 15 | | 60 |

Dr. Journal Cr.

| Expense | Press Work | Bdg. | Composition | Sales Account | General Ledger | Fol. | Date | Particulars | Fol. | Accts. Receble | General Ledger | Paper Stock Accts. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 6 - | | 30 | Dec. 5 | W T McCormack | | | | 6 - |
| | | | | | | | | J H Gillette & Co. | 3 | 6 - | | |
| | | | | | | | | 2½% on paper Job # 9 | | | | |
| | | | | | 18 - | 30 | 7 | W T McCormack | | | | 18 - |
| | | | | 18 - | | | | C W Ammerman | 8 | 18 - | | |
| | | | | | | | | 2½% on paper Job # 11 | | | | |
| | | | | | 18 - | 30 | 15 | W T McCormack | | | | 18 - |
| | | | | 18 - | | | | J J Bell | 8 | 18 - | | |
| | | | | | | | | 2½% on paper Job # 20 | | | | |
| | | | | 1 80 | | | 16 | Sales 4% on W T Salling 4% Discount | 10 | 1 80 | | |
| | | | | | 429 37 | 44 | 31 | Gen'l Rec'ts | | | | |
| | | | | | | | | Sales | 45 | | 429 37 | |
| | | | | 43 80 | 4241 37 | | | | | 43 80 | 4241 37 | 42 00 |

Working Balance Sheet

| | TRIAL BALANCE | | TRADING ACC'T | | PROFIT & LOSS | | BALANCE SHEET | |
|---|---|---|---|---|---|---|---|---|
| Cash | 6750.72 | | | | | | 6750.72 | |
| Plant & Machinery | 2000.00 | | | | | | 2000.00 | |
| Furniture & Fixtures | 490.00 | | | | | | 490.00 | |
| Accounts Receivable | 1111.29 | | | | | | 1111.29 | |
| Capital | | 10000.00 | | | | | | 10000.00 |
| Buffalo Ink Co. | | 26.00 | | | | | | 26.00 |
| Page & Co. | | 458.36 | | | | | | 458.36 |
| Inventory | 1000.00 | | 1000.00 | | | | | |
| Purchases | 2231.75 | | 2231.75 | | | | | |
| Binding | 345.39 | | 345.39 | | | | | |
| Composition | 216.78 | | 216.78 | | | | | |
| Press Work | 301.70 | | 301.70 | | | | | |
| Sales | | 4297.57 | | 4297.57 | | | | |
| Inventory | | | | 1386.00 | | | 1386.00 | |
| Discount | | 62.55 | | | | 62.55 | | |
| Rent & Power | 100.00 | | | | 100.00 | | | |
| Salaries | 275.00 | | | | 275.00 | | | |
| General Expense | 21.85 | | | | 21.85 | | | |
| Gross Profit | | | 1587.95 | | | 1587.95 | | |
| Net | | | | | 1253.65 | | | 1253.65 |
| | 14849.48 | 14849.48 | 5683.57 | 5683.57 | 1650.50 | 1650.50 | 11738.01 | 11738.01 |

| | | |
|---|---|---|
| Binding | 345.39 | |
| Binding | 345.39 | |
| Press Work | 301.70 | |
| Sales | | 4,255.57 |
| Capital | | 10,000.00 |
| Page & Co. | | 458.36 |
| Buffalo Ink Co. | | 26.00 |
| | $14,802.48 | $14,802.48 |

ACCOUNTS RECEIVABLE CONTROLLING ACCOUNT.

| | Dr. | Dec. 31, | Cr. | Bal. |
|---|---|---|---|---|
| Dec. 31, S. B. | $ 4,299.37 | C. | $ 3,121.56 | |
| | | Dis. | 22.72 | |
| | | J. | 43.80 | Dr. $1,111.29 |

SALES ACCOUNT.

| | Dr. | Dec. 31, | Cr. | Bal. |
|---|---|---|---|---|
| Dec. 31, J. | $ 43.80 | J. | $ 4,299.37 | Cr. $4,255.57 |

OPENING ENTRIES AND MANIFOLD BLANKS.

We now present the necessary particulars for a continuation of the transactions of The Eagle Printing Co. for the month ending Jan. 31st. These particulars consist of:

Schedule A—Order Register and Sales Book.

Schedule B—List of Purchases.

Schedule C—List of Cash Receipts and Expenditures.

Schedule D—Journal Entries.

Submit trial balance of work. Make trading account, profit and loss account, and balance sheet. Provide for a reserve for depreciation of 5 per cent per annum on plant and machinery, and 10 per cent per annum on furniture and fixtures.

## SCHEDULE "B."

| | | |
|---|---|---|
| Jan. 2. | Page & Co., Envelopes. | $ 13.92 |
| Jan. 2. | Page & Co., Paper | 302.15 |
| Jan. 4. | W. T. McCormack, Paper | 330.00 |
| Jan. 5. | Page & Co., Paper and Envelopes | 48.75 |
| Jan. 6. | W. T. McCormack, Paper | 555.60 |
| Jan. 6. | Page & Company, Envelopes | 207.50 |
| Jan. 6. | W. T. McCormack, Paper | 508.70 |
| Jan. 7. | Buffalo Ink Co., Ink | 75.00 |
| Jan. 7. | Page & Co., Paper and Envelopes | 41.65 |
| Jan. 8. | Page & Co., Paper and Envelopes | 10.77 |
| Jan. 12. | W. T. McCormack, Paper | 360.00 |
| Jan. 15. | Page & Co., Envelopes | 300.00 |
| Jan. 18. | Buffalo Ink Co., Ink | 75.00 |

## SCHEDULE "C."

LIST OF CASH RECEIPTS AND EXPENDITURES.

CASH RECEIPTS.

| | | |
|---|---|---|
| Jan. 5. | W. F. Trescott | $ 18.97 |
| | G. W. Moore | 1.05 |
| Jan. 6. | W. G. Brown | 3.63 |
| | F. C. Smith | 3.71 |
| | J. G. Huber | 3.50 |





| | | | |
|---|---|---|---|
| Jan. 9. | W. Sommerville | 3.78 | |
| | A. Gratz | 4.87 | |
| | W. J. Wilson | 2.50 | |
| Jan. 12. | J. F. Moore | 46.50 | |
| | J. McLaughlin | 81.09 | |
| | W. F. Whitney | 882.00 | |
| | 2% discount | 18.00 | |
| Jan. 14. | G. P. Upton | 735.00 | |
| | 2% discount | 15.00 | |
| | D. F. Morton | 1.46 | |
| Jan. 17. | A. C. McLeod | 122.00 | |
| Jan. 21. | G. F. Sheeley | 64.00 | |
| Jan. 23. | W. C. Ball | 42.50 | |
| | F. C. Dester | 1000.00 | on account |
| | J. T. Wing | 500.00 | on account |

SCHEDULE OF CASH PAYMENTS.

Material Purchases.

| | | | |
|---|---|---|---|
| Jan. 10. | Page & Co. | $458.36 | |
| | Buffalo Ink Co. | 26.00 | |
| Jan. 23. | W. T. McCormack | 1000.00 | on account |
| | J. F. Moore, (A. R.) | 3.75 | |
| Jan. 26. | Buffalo Ink Co. | 73.50 | |
| | Discount | 1.50 | |
| Jan. 30. | Page & Co. | 296.10 | |
| | Discount | 6.05 | |

SUNDRY DISBURSEMENTS FOR MONTH.

| | | |
|---|---|---|
| | Stamps | 5.00 |
| Jan. 31. | Repairs | 13.00 |
| | Office Supplies | 21.37 |
| | Salaries | 275.00 |
| | Rent | 100.00 |

TRADING EXPENSES FOR MONTH.

| | | |
|---|---|---|
| Jan. 31. | Press Work | $912.11 |
| | Binding | 681.56 |
| | Composition | 100.00 |

## SCHEDULE "D."

JOURNAL ENTRIES.

| | |
|---|---|
| Inventory, Jan. 31 | $690.00 |
| W. T. McCormick, Dr. to J. T. Moore, Cr. | 375.00 |
| (Allowance on defective paper.) | |

## SOLUTION.

TRIAL BALANCE, JAN. 31, 1905.

| | Dr. | Cr. |
|---|---|---|
| Cash | $ 6,301.53 | |
| Plant and Machinery | 2,000.00 | |
| Inventory—Dec. 31, 1904 | 1,386.00 | |
| Furniture and Fixtures | 490.00 | |

Schedule A

| Date Mailed | Name | Order No. | Date of Order | Job No. | | Description | Pattern etc. | Composition | Press Work | Discounts Folding | Total Cost | Charge |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 1 | Wm J Wilson Toronto, Ont. | 21 | 12/28/04 | 26 | 1M | 6¾ Envelopes | 87 | 08 | 1 00 | | 1 95 | 2 50 |
| 2 | John F Moore Toledo O. | 22 | 12/29/04 | 27 | 100M | Letterheads | 8 10 | 15 | 7 50 | 09 | 15 84 | 21 00 |
| " | " | " | " | " | 15M | 6¾ Envelopes | 13 05 | 13 | 6 00 | | 14 18 | 25 50 |
| " | " | " | " | " | 15M | Price Lists | 4 05 | 07 | 3 75 | | 7 87 | 10 50 |
| 3 | Wm F Whitney Detroit Mich. | 23 | 12/29/04 | 28 | 250M | 8½ Folders | 50 00 | 11 50 | 125 00 | 12 50 | 76 50 | 90 00 |
| 4 | G F Upton Big Rapids Mi. | 24 | 1/2/05 | 29 | 100M | 16½ Folders | 40 00 | 10 00 | 100 00 | 10 00 | 61 00 | 75 00 |
| " | " | " | " | " | 100M | 6¾ Envelopes | 9 00 | 11 | 35 00 | | 12 51 | 16 50 |
| 5 | Alex C McLeod Bay City, Mich | 25 | 1/2/05 | 30 | 75M | 6¾ Envelopes | 21 75 | 08 | 10 00 | | 31 83 | 42 00 |
| " | " | " | " | " | 15M | 8½ Envelopes | 5 00 | 10 50 | 12 50 | 1 85 | 41 50 | 122 00 |
| " | " | " | " | " | 15M | Postal Cards (Stamped) | 1 15 | | 10 00 | | 10 16 | 12 50 |
| 6 | Geo F Sheeley Detroit Mich. | 26 | 1/3/05 | 31 | 200M | Bill Heads | 12 00 | 1 60 | 17 50 | 1 47 | 31 57 | 42 00 |
| " | " | " | " | " | 200M | Gum Tickets | 6 00 | 50 | 10 00 | | 16 50 | 22 00 |
| 7 | F G Dester Saginaw Mich. | 27 | 1/5/05 | 32 | 150M | 16½ Folders | 100 00 | 15 50 | 250 00 | 25 00 | 151 50 | 180 00 |
| " | " | " | " | " | 150M | 6¾ Envelopes | 20 75 | 11 | 75 00 | | 28 61 | 37 00 |
| 8 | John T Wing Muskegon Mich | 28 | 1/5/05 | 33 | 150M | 16½ Folders | 100 00 | 16 00 | 250 00 | 25 00 | 151 00 | 201 50 |
| 9 | W K Bull Holland Mich | 29 | 1/5/05 | 34 | 50M | 8½ Folders | 10 00 | 10 70 | 5 00 | 6 25 | 31 46 | 42 50 |
| " | " | 29 | " | " | 50M | 6¾ Envelopes | 4 25 | 40 | 2 00 | | 6 65 | 9 00 |
| 10 | F D White Detroit Mich | 30 | 1/6/05 | 35 | 100 | Bill Heads | 63 | 13 | 35 | 07 | 1 08 | 1 50 |
| 11 | E R Jackson Detroit Mich | 31 | 1/6/05 | 36 | 500 | Bill Heads | 63 | 15 | 25 | 07 | 1 00 | 1 50 |
| " | " | " | " | " | 100M | 6¾ Envelopes | 50 | 04 | 25 | | 8 11 | 12 50 |
| 12 | E R Moore Detroit Mich | 32 | 1/6/05 | 37 | 1M | 16½ Folders | 4 00 | 9 60 | 14 00 | 2 00 | 19 60 | 26 50 |
| 13 | John Lorimer Detroit Mich | 33 | 1/6/05 | 38 | 1M | Dinner Cards | 47 | 37 | 1 50 | | 2 34 | 3 00 |
| 14 | Geo Loria Detroit Mich | 34 | 1/6/05 | 39 | 1M | Cards | 67 | 35 | 1 50 | | 2 52 | 3 50 |
| 15 | E G O'Brien Detroit Mich | 35 | 1/5/05 | 40 | 500 | Bill Heads | 63 | 15 | 25 | 07 | 1 09 | 1 50 |
| 17 | C T Smith Detroit Mich | 36 | 1/6/05 | 41 | 500 | Bill Heads | 63 | 15 | 25 | 09 | 1 16 | 1 50 |
| 18 | W F Trombley Detroit Mich | 37 | 1/7/05 | 42 | 500 | Price Lists | 65 | 42 | 25 | | 1 32 | 1 75 |
| 23 | John T Goff Detroit Mich | 38 | 1/8/05 | 43 | 1M | Price Lists | 1 20 | 1 13 | 50 | | 2 63 | 3 00 |
| 25 | Wm Murray Detroit Mich | 39 | 1/9/05 | 44 | 1M | Bill Heads | 1 20 | 30 | 50 | 10 | 2 10 | 2 75 |
| 25 | John T Trotter Detroit Mich | 40 | 1/9/05 | 45 | 1M | 6¾ Envelopes | 38 | 13 | 50 | | 1 51 | 2 00 |
| | | | | | | | 3234 | 96 | 1450 | 25 | 7521 | 5556 | 6849 |





| | | |
|---|---|---|
| Accounts Receivable | 3,760.48 | |
| Purchase Account | 2,829.04 | |
| Discount | 25.45 | |
| Expense | 414.37 | |
| Composition | 100.00 | |
| Press Work | 912.11 | |
| Binding | 681.56 | |
| Accounts Payable | | $10,000.00 |
| Accounts Payable | | 1,451.89 |
| Sales | | 6,195.00 |
| Surplus | | 1,253.65 |
| | $18,900.54 | $18,900.54 |

TRADING ACCOUNT, JAN. 31, 1905.

| | Dr. | | Cr. |
|---|---|---|---|
| Inventory—Dec. 31, 1904 | $1,386.00 | Sales | $6,195.00 |
| Purchases | 2,728.04 | Inventory—Jan. 31, 1905 | 690.00 |
| Ink | 101.00 | | |
| Composition | 100.00 | | |
| Press Work | 912.11 | | |
| Binding | 681.56 | | |
| Gross Profit | 976.29 | | |
| | $6,885.00 | | $6,885.00 |

PROFIT AND LOSS ACCOUNT, JAN. 31, 1905.

| | | | |
|---|---|---|---|
| Expense | $ 414.37 | Gross Profit from Trading Ac... | $ 976.29 |
| Discount | 25.45 | | |
| Depreciation | 24.82 | | |
| Net Profit | 511.65 | | |
| | $ 976.29 | | $ 976.29 |

BALANCE SHEET, JAN. CV, VTJE.

| ASSETS. | | LIABILITIES. | |
|---|---|---|---|
| Cash | $6,301.53 | Accounts Payable | $ 1,451.89 |
| Plant and Machinery | 2,000.00 | Capital | 10,000.00 |
| Inventory—Jan. 1, 1905 | 690.00 | Reserve for depreciation | 24.82 |
| Furniture and Fixtures | 490.00 | Surplus D. | 1,765.30 |
| Accounts Receivable | 3,760.48 | | |
| | $13,242.01 | | $13,242.01 |

## (292) BOOK-KEEPING LITERATURE.

COMPILED BY RICHARD BROWN, PROFESSOR OF MERCANTILE LAW, ST. MUNGO'S COLLEGE, GLASGOW, SCOTLAND.

The following is a list, with notes, of printed books on book-keeping. It is as full—to the end of the seventeenth century—as the writer can make it, containing every book in the European languages of which he can find a trace. No one can claim completeness for a bibliography of ancient authors, but there is no published list known to the writer which contains even half the number of the books here mentioned. From the beginning of the eighteenth century only English books are included in the list, and, especially as regards publications of recent date, only a few of the more important.

*Venice*, 1494. LUCAS PACIOLI. "Frater Lucas de burgo Sancti Sepulcri." "Suma de Arithmetica Geometria Proportioni e Proportionalita."

Another edition. *Tusculano*, 1523.

Another book entitled "La Scuola perfetta die mercanti di Fra Pacciolo di Borgo, Santo Sepulcro." *Venice*, 1504.

The earliest known printed book on book-keeping. The author follows the "method of Venice," and the system described is what we call double entry.

*Nurnberg*, 1521. HEINRICH SCHREIBER. "Henrichen Gramateum." "Behend vnd Kunstlich Rechnung nach der Regel vnd welhisch practic," etc.

*Erfurt*, 1523 (written and completed at Vienna in 1518). "Henricus Grammateus." "Rechenbüchlin, Künstlich, behend vnd gewiss, auff alle Kauffmannschafft gericht."

Other editions: 1545, and *Frankfurt*, 1572.

The oldest German treatise on the subject. Describes a kind of book-keeping closely corresponding to single entry.

*Venice*, 1525. GIOVANNI ANTONIO TAGLIENTE. "Considerando io Joanni Antonio Taiente . . . el laudabile modo de tenere conto de libro dopio cioe, el Zornale," etc.

This small book illustrates the use of Dr. and Cr. by examples, but gives no form of a ledger.

*Nuremberg*, 1531. JOANN GOTLIEB. "Ein Teutsch verstendig Buchhalten für Herren oder Gesellschaffter inhalt Wellischem process," etc.

Another edition. *Nürnberg*, 1546.

Describes the rudiments of Italian book-keeping, but not very clearly.

*Venice*, 1534. DOMINICO MANZONI. "Quaderno doppio col suo giornale secondo il costume di Venetia."

Another edition. *Venice*, 1554.

Other editions bearing the title "Libro mercantile ordinato col suo giornale et alfabeto per tener conti doppi al modo di Venetia." *Venice*, 1540, 1564, 1565, 1573, and 1574.

A close copy of Pacioli, with simply the addition of examples.

*Milan*, 1539. GIROLAMO CARDANO. "Practica Arithmetice et mensurandi Singularis."

Reprinted in the author's collected works. *Leyden*, 1663.

Chapter LX., headed "De ratione librorum tractandorum," deals briefly with book-keeping.

*London*, 1543. HUGH OLDCASTLE, Scholemaster. "A profitable Treatyce called the Instrument or Boke to learne to knowe the good order of the Kepyng of the famouse reconynge, called in Latyn, Dare and Habere, and in Englyshe, Debitor and Creditor."

Reprinted by John Mellis in 1588, *vide infra*. Believed to be the first English book on book-keeping, but no existing copy of this edition is now known.

*Antwerp*, 1543. JAN YMPYN CHRISTOFFELS. "Nieuwe Instructie Ende bewwijs der lo-offelijcker Consten des Rekenboecks ende Rekeninghe te houdene nae die Italiaensche maniere," etc.

A French translation published in *Antwerp*, 1543, entitled "Nouuelle Instruction et Remonstration de la tres excellente fciece du liure de Compte, pour compter & mener comptez, a la maniere d'Itallie," etc.

An English translation published in *London*, 1547, entitled "A notable and very excellente woorke, expressyng and declaryng the manner and forme how to kepe a boke of accomptes or reconynges, verie expedient and necessary to all Marchantes, Receiuers, Auditors, Notaries, and all others. Translated with greate diligence out of the Italian toung into Dutche, and out of Dutche into Frenche, and now out of Frenche into Englishe."

The earliest known Dutch and French works on book-keeping. Part I. is practically an adaptation of Pacioli. Part II. contains excellent examples of Journal, Ledger, Inventories, etc.

*Nürnberg*, 1549. WOLFFGANG SCHWEICKER, Senior. "Zwifach Buchhalten, sammt seinē Giornal desselben Beschlus auch Rechnung zuthun," etc.

An excellent book, drawn largely from Pacioli and Manzoni.

*Antwerp*, 1550. VALENTIN MENNHER DE KEMPTEN. "Practique brifue pour cyfrer et tenir Liures de Compte touchant le Principal train de marchandise."

A Spanish translation by ANTICH ROCHA, published at Barcelona in 1565, entitled "Compendis y breue instruction por tener Libros de Cuenta, Deudas, y de Mercaduria."

Another edition (in French) published at *Lyon*, 1591.

Another book by Mennher, published at *Antwerp* in 1565, entitled "Practique pour brievement apprendre à Ciffrer, & tenir Liure de Comptes, auec la Regle de Coss, & Goemetrie."





Mennher added various improvements in details to the system of double entry.

*London*, 1553. JAMES PEELE. "The maner and fourme how to kepe a perfecte reconyng after the order of the most worthie and notable accompte of Debitour and Creditour set forthe in certain tables with a declaracion thereunto belongyng."

Another work by Peele was published in London in 1569, entitled "The patheway to perfectness in the accomptes of Debitour and Creditour: in manner of a dialogue very pleasant and profitable for Marchaunts and all other that minde to frequent the same, once againe set forthe and very much enlarged," etc.

In both books a system of double entry is described such as Peele believed to be used in Venice. In the earlier publication the "great booke of accomptes" is called "Quaterne" (from the Italian "Quaderno"), in the later "Leager."

*Venice* (?) 1558. ALVISE CASANOVA. "Specchio lucidissimo."

Said to be simply a copy of Pacioli and Manzoni.

*Venice*, 1573. BENEDETTO COTRUGLI. "Della mercatura e del mercante perfetto."

A French translation, dated 1582.

This book is stated to have been written and completed in 1458, though not printed till 1573. There is a description of mercantile book-keeping with brief rules which indicate familiarity with the system of double entry.

*Antwerp* (?) 1573. MICHIEL COIGNET. A Dutch work on book-keeping.

*Mantua*, 1586. ANGELO PIETRA. "Indrizzo de gli Economi o sia ordinatissima instruttione da regolatamente formare qualunque scrittura in un libro doppio."

Treats of the accounts of monasteries.

*London*, 1588. JOHN MELLIS. "A briefe instruction and maner how to keepe bookes of Accomptes after the order of Debitor and Creditor, and as well for proper Accompts pustible, etc. By the three books named the Memoriall Journall and Leager, and of other necessaries appertaining to a good and diligent marchant. The which of all other reckoninges is most lawdable: for this treatise well and sufficiently knowen, all other wayes and maners may be the easier and sooner discerned learned and knowen. Newely augmented and set forth by John Mellis, Scholemaister.

The author acknowledges that he is but the "reneuer and reviver of an auncient old copie" of Oldcastle referred to above. The original portion of the work consists of some forms of books and a treatise on arithmetic. The system of book-keeping described is "after the forme of Venice."

*Amsterdam*, 1588. NICOLAUS PETRI DAVENTRIENSIS. Also 1595 and 1596. The last entitled "Practicque omte Leeren Rekenen Cypheren ende Boeckhouwen met die Reghel Coss," etc.

Contains arithmetic, algebra, geometry, and an example of book-keeping.

*Rotterdam* (?) 1590. ELEIUS EDUARD LEON MELLEMA. A Dutch writer.

*Madrid*, 1590. B. S. DE SOLORZANA. "Libro de Caxa y manual de Cuentas de Mercaderes." "Compendio para tener y regir los libros de Cuentas de Mercaderes."

——(?) 1592. BARTHELEMY DE RENTEREGHEM. A Dutch writer.

*Hamburg*, 1594. PASSHIER-GOESSENS. A good German writer.

——(?) 1595. MARTINUS WENCESLAUS. A Dutch writer.

*London*, 1596. W. P. "The Pathway to Knowledge. Conteyning certaine briefe Tables of English waights and measures. . . . With the Rules of Cossicke, Surd, Binomicall, and Residuall Numbers, and the rule of Equation or of Algebere . . . and lastly the order of keeping of a Marchant's booke, after the Italian manner, by Debitor and Creditor. . . . Written in Dutch, and translated into English by W. P."

——(?) 1598. MARTIN VAN DEN DYCKE. A Dutch writer.

*Middelburg*, 1603. JAN COUTEREELS of Antwerp.

*Leyden*, 1605-7. SIMON STEVIN of Bruges. "Mathematica hypomnemata," etc.

The second volume of this work treats of "Book-keeping for Princes (or States) after the Italian manner."

——(?) 1609. SIMONE GRISOGONO DI ZARA. "Mercante arrichito dal perfetto quaderniere."

*Venice*, 1610. GIOVANNI ANTONIO MOSCHETTI. "Dell' universal trattato di libri doppi."

Follows Tagliente, Manzoni, and Casanova.

*Amsterdam*, 1615. HENDRICK WANINGHEN VAN CAMPEN. "Tresoor vant Italiaens Boeck-Houden."

Other editions by IOANNES BUINGHA, published in Amsterdam in 1627 and 1639.

*Amsterdam*, 1616. JAN WILLEMSZ von Löwen. "Goulden Schoole."

*London*, 1622. GERARD MALYNES, Merchant. "Consuetudo, vel, Lex Mercatoria, or, The Antient Law-Merchant. Divided into three parts: according to the essentiall parts of Trafficke, Necessarie for all Statesmen, Judges, Magistrates, Temporall and Civile Lawyers, Mintment, Merchants, Mariners, and all others negotiating in all places of the world."

Has a chapter on the keeping of merchants' accounts by double entry.

*London*, 1632. I. CARPENTER, Gent. "A most excellent instruction for the . . keeping merchants bookes of accounts by way of Debitor and Creditor. . . . And . . . here is adioyned the practice by an example of the Inventory, Journall, and Lidger," etc.

Largely taken from Hendrick Waninghen.

*Bologna* (?), 1632. MATTEO MAINARDI. "Scrittura Mercantile."

*London*, 1636. RICHARD DAFFORNE of Northampton, Accountant. "The Merchants' Mirrour, or Directions for the perfect ordering and keeping of his accounts, Framed by way of Debitor and Creditor, after the (so tearmed) Italian manner: containing 250 rare questions, with their answers, in forme of a Dialogue. As likewise a Waste Booke, with a compleat Journall and Leager thereunto appertaining . . . and also a Moneth-Booke," etc.

An excellent book describing double entry in its full development.

*Palermo*, 1636. LODOVICO FLORI. "Trattato del modo di tenere il libro doppio domestico."

Another edition, *Palermo*, 1677.

*London*, 1652. JOHN COLLINS, Fellow of the Royal Society. "An Introduction to Merchants Accompts, containing seven distinct questions on accompts," etc.

*Florence*, 1655. BASTIANO VENTURI. "Della scrittura conteggiante di possessioni," etc.

Treats of Estate Management and Book-keeping.

*Bologna* (?), 1666. GIACOMO VENTUROLI. "Scorta di Economia o sia Dialogo di scrittura famigliare."

Another edition. *Bologna*, 1717.

*London*, 1660. ABRAHAM LISET, Gent. "Amphithalami, or the Accountant's Closet. Being an abridgment of merchant's accounts kept by Debitors and Creditors, exactly and accurately shewing how to order, state, and keep accounts either of a publick Firm, a private Estate, into a single Book, without a memorial, and Journal, or annal; whereby calculation may be made at pleasure of the advance or arrear, gain and loss, of the whole stock and architecture," etc.

*Brescia* (?), 1671. ANTONIO ZAMBELLI. "Ragionato o sia il trattato della scrittura universale."

Another book by Zambelli, entitled "Mercantesche dichiarazioni della scrittura doppia," dated 1681.

*Edinburgh*, 1693. ROBERT COLINSON. "Idea Rationaria, or the Perfect Accomptant. Necessary for all merchant and Trafficquers, containing the true forme of Book-keeping according to the Italian methode," etc.

*London*, 1695. EDWARD HATTON. "The Merchant's Magazine, or Trades Man's Treasury," etc.; and subsequent editions.

*London*, 1711. ABRAHAM NICHOLAS. "The Young Accomptant's Debitor and Creditor; or, An Introduction to Merchants' Accounts, after the Italian Manner," etc.

*Edinburgh*, 1718. ALEXANDER MALCOLM. "A New Treatise of Arithmetick and Book-keeping."

*London*, 1721 (2nd Edit.) WILLIAM WEBSTER. "An Essay on Book-keeping."

*London*, 1731. ALEXANDER MALCOLM. "A Treatise of Book-keeping; or Merchants' Accounts," etc.

*Edinburgh*, 1736. JOHN MAIR. "Book-keeping Methodiz'd; or, a Methodical Treatise of Merchant-Accompts," etc., and subsequent editions.

*Edinburgh*, 1768. JOHN MAIR. "Book-keeping Modernized," etc.; and subsequent editions.





*London*, 1784. THOMAS DILWORTH. "The Young Book-keeper's Assistant," etc.; and subsequent editions.

*Bristol*, 1796. EDWARD T. JONES. "Jones's English System of Book-keeping, by Single or Double Entry;" and subsequent editions.

*Glasgow*, 1798. C. BUCHANAN. "The Writing-master and Accountant's Assistant," etc.

*London*, 1801. P. KELLY. "The Elements of Book-keeping," etc.

*Hawick*, 1807. WILLIAM LORRAIN. "Book-keeping by Double Entry," etc.

*Glasgow*, 1815. C. MORRISON. "A Complete System of Practical Book-keeping applicable to all Kinds of Business," etc.; and subsequent editions.

*Leeds*, 1820 (3rd Edit.). JAMES MORRISON. "A Complete Treatise on Practical Book-keeping," etc.

*London*, 1841. A. G. HENDERSON. "Book-keeping by Single and Double Entry," etc.

*Edinburgh*, 1861. F. HAYNE CARTER. "Practical Book-keeping adapted to Commercial and Judicial Accounting, with Sets of Books and Forms of Accounts;" and subsequent editions.

*Oxford*, 1868. Sir R. G. C. HAMILTON and JOHN BALL. "Book-keeping;" and subsequent editions.

*London*, 1893. LAWRENCE R. DICKSEE. "Book-keeping for Accountant Students;" and subsequent editions.

*Edinburgh*, 1899. GEORGE LISLE. "Accounting in Theory and Practice."

## (293) BOOT AND SHOE MANUFACTURERS' ACCOUNT.

THE CUTTING DEPARTMENT OF A SHOE FACTORY. A recent change from time work to piece work in a cutting department, made necessary a new form of work slip in that department. Each job given a cutter consists of several cases of lots of shoes made on several patterns which will work up to the best advantage the leather to be used. A work slip is made out for each job, giving the case numbers, styles, patterns and short descriptions enabling the cutter to secure his patterns and arrange his work to advantage. These slips are also valuable in cost accounting, as they record the time and gain or loss in leather on each job and form a record of the cutters' work. Cost on shoes must be figured very closely and it is important to have accurate figures on the beginning of the shoes, especially when that forms a large percentage of the cost. The usual method of figuring piece work is to provide the operator with a book in which he enters the case number, number of pairs and the amount earned on each lot handled. This makes it necessary to carefully check each item for mistakes in copying from the tickets. Many disputes arise from an entry of a case number which has been credited to another operator. To avoid these troubles and to have all extensions made by the office force and checked by the operators, the form illustrated was devised. This form is made in duplicate, the carbon copy which cannot be altered without detection being returned with the completed work. A cutter will average about four slips weekly and to make up the pay roll for the department it is only necessary to add these slips. The same lot cannot be paid for more than once and the slips are accurate proof in case of damaged work. Errors in extensions or prices are immediately reported

Cutting Department-Pontiac Shoe Manufacturing Co.

Cut by Miller No. 4 Date Com. 5/5 11:30 Finished 5/6 5:15

Blum 19 ℔ Paid 5/12/05

Given 24 1/2 Given Given Given

Retd 23 Retd Retd Retd

Used 239 Used Used Used

Loss Gain 1/2 Tap Kid Cut Tips

| Case | Gr | Pairs | Style | Prs | Rem | Total | | | Tip | Vp | Qr | Fx | BS | LS | Tap | Allowance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4072 | - | 583 | 996 | 60 | | | Chi. Ox | E | ✓ | ✓ | ✓ | ✓ | | | | 80 |
| 4073 | - | ✓ | ✓ | 60 | | | ✓ ✓ | E | ✓ | ✓ | ✓ | ✓ | | | | 80 |
| 4074 | - | ✓ | ✓ | 60 | 24 | | ✓ ✓ | E | ✓ | ✓ | ✓ | ✓ | | | | 80 |
| | | | | | 4 | 32 | | | | | | | | | | 240 ff |

by the cutter, preventing disputes after work is done. As it is necessary to have some form of slip to obtain figures as to economical cutting of each variety of stock used and the quality of the cutter's work, there is no extra time used for the pay roll.—*(J. A. Sutherland.)*

A SIMPLE SYSTEM FOR SHIPPING SHOES.—It is a fortunate shoe manufacturer, who is able to sell his output at a nice profit and if he is able to make his shoes on time, he is indeed to be envied. But many a manufacturer loses the advantage of good sales and factory work by the handicap of a poor or careless system of shipping. The time arrives when the bulk of the orders must be shipped and he finds himself shipwrecked on a sea of promises. Generally in this emergency the office force is hastily equipped with "wouldn't rip" overalls and invited to "accept" positions in the shipping department. Mistakes in shipping are always annoying, sometimes costly and invariably cause trouble for the house, salesman and customer. A good system is half a victory, but too much system becomes a burden and worse than none. The system adopted should be simple. It should be elastic, readily applicable to a large or small volume of business and above all inexpensive in operation. It should enable the shipping clerk or office manager to fix positively the responsibility for mistakes, or carelessness.

The system described is designed for a factory making 500 to 5,000 pairs daily and shipping on immediate or future orders direct to the retailer and provides for orders shipped complete or partially. A jobbing house could also use these forms. A specially ruled sheet, Form 1, and a book ruled as Form 2 are all that are required. Form 1 is made in tablet form, 50 white original sheets carbon backed and 50 yellow duplicates. The sheets are about six by nine inches in size, and the white sheet is perforated for a canvas post binder. The system is best described by following the shipment made to Myers. Provided with the original order clerk J. E. L. assembles the shoes on a stock truck. Each item, width, pairs and sizes, where not a regular run, are entered on Form 1 and its duplicate. The shoes are now wheeled to the packing tables and J. E. L. enters the





Shipped by THE PONTIAC SHOE MFG COMPANY Pontiac, Ill.

No 576 To C.E. Meyers

9/16-05 Nolan Ill.

Salesman S Book D No 15 Via B P and J

Shipped By J.E.L. Checked by M.M.

| Style No. | Width | Pairs | Price | SIZES 2½ | 3 | 3½ | 4 | 4½ | 5 | 5½ | 6 | 6½ | 7 | 7½ | 8 | 8½ | 9 | 9½ | 10 | 10½ | 11 | 11½ | 12 | 12½ | 13 | 13½ | 1 | 1½ | 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M 62 | E | 20 | 1.40 | | 2 | 1 | 1 | 4 | 3 | 2 | 4 | | 1 | 1 | 1 | | | | | | | | | | | | | |
| K 62 | D | 6 | ✓ | | 2 | 1/2 | /5 | | | | | | | | | | | | | | | | | | | | | |
| R 45 | C | 12 | 1.60 | | 2 | 1 | 2 | 1 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | |
| 273 | EE | 24 | 1.50 | | | | 3 | 2 | 3 | 2 | 4 | 2 | 4 | 2 | 2 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

These goods have been checked twice. Return this slip at once if mistake is found

FORM 1.

shipment on the record, Form 2. From this record he takes consecutive shipment and charge number 576, which he marks on Form 1. As Myers orders his goods routed via the B. P. & J. Ry., the clerk copies this on both forms. In the absence of shipping instructions, the shipping clerk routes the shipment. Both sheets are now torn from the tablet, the white

Factory Work Book Checking System

| No | Description | Pairs | Lasted | Puller Over | Date Lasted | Sole Laying McKay Sewed | Bent Out | Heeled | Edge Trim | Edge Set | Heel Shaved | Buffing | Pasting | Rolling and Brush To Packroom Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wallace Smith Co | | | | | | | | | | | | | |
| 4887 | Wos Dong Pol Tip Last 45 E 7/8 | 36 | 45 | 61 | 8-15 | 70 | 81 | 90 | 97 | 101 | 105 | 113 | 120 | 125 | 130 | 8-25 |
| 4888 | " " " E 7/7 | 36 | 45 | 61 | 8-15 | 70 | 83 | 90 | | | | | | | | |
| 4889 | " " " EE 5/8 | 36 | 51 | 67 | 8-12 | 70 | 84 | | | | | | | | | |
| 4890 | Chds Tap Gt Blp Tip 70 E 9/8 | 60 | 53 | 60 | 8-1 | 75 | 81 | 93 | 96 | 103 | 108 | 115 | 123 | 128 | | |
| 4891 | " " " 9/11 | 60 | 52 | 62 | 8-5 | 75 | 83 | 92 | 96 | 104 | 107 | | | | | |
| | Edwards Shoe Co NY | | | | | | | | | | | | | | | |
| 4892 | Wos Vici Pol Blu Tip Last 3/6 | 36 | 44 | 64 | 8-10 | 70 | 83 | 91 | 98 | | | | | | | |
| 4893 | " " " 4/7 | 36 | 47 | 67 | 8-11 | 75 | 85 | 93 | | | | | | | | |
| 4894 | " " " 2 3/8 | 36 | 47 | 63 | 7-31 | 74 | 81 | | | | | | | | | |
| 4895 | " " " 3/5 | 24 | 47 | 69 | 8-15 | 70 | 83 | 90 | 97 | | | | | | | |
| | Brown Bros Co | | | | | | | | | | | | | | | |
| 4896 | Chds Imt Gt Tip Blp 70 EE 5/8 | 72 | 48 | 65 | 8-7 | 70 | 83 | 90 | 96 | 102 | | | | | | |
| 4897 | " " " 4/8 | 72 | 50 | 65 | 8-9 | 75 | 85 | 90 | 98 | 103 | | 114 | | | | |
| 4898 | Miss Oil Grp Pol F 1/8 | 48 | 53 | 63 | 8-10 | 75 | 84 | 93 | 98 | | | | | | | |
| 4899 | " " " F 1 3/8 | 48 | 54 | 63 | 8-11 | 74 | 85 | 90 | 96 | 104 | 105 | 113 | 121 | 127 | 131 | 8-24 |
| 5000 | Miss Russ Blu Ox Tip 45 E 1/8 | 36 | 55 | 69 | 8-14 | 70 | 81 | 91 | 97 | 102 | 108 | | | | | |
| 5001 | Chds " " Sp Heel 3/8 | 36 | 48 | 60 | 8-6 | 75 | 83 | 91 | 98 | 103 | | | | | | |

Principal Operations from Lasting to Packing Room

FORM 3.

being placed on a hook for the bill clerk and the yellow sheet left with the goods. Packer M. M. packs the order, re-checking the goods, from the yellow sheet which he incloses in the case after signing. He does not pack the goods unless the sheet is signed by the clerk assembling the order. The marker checks the "mark" column in the record if he finds the correct number of cases and when the bill of lading is made that column is checked. The bill clerk in removing the originals from the book will call for any missing number thus—no shipment can be made without a charge, a very important precaution. In tracing delayed shipments or disputed accounts the number readily establishes the date and route of shipment and locates the bill of lading which is filed numerically. As billed each item is checked on the original order. If completed the order is filed with the customers' correspondence; if partially shipped, it is returned to the proper binder. After billing, Form 3 is filed in a post binder by date, which is also practically numerically.

THE PONTIAC SHOE MFG. CO.
Shipping Dept Record
September 15-1905.

| Date | Charge No | Shipped To | Town and State | Cases | Pkgs | Via | Mark | B.L. | |
|---|---|---|---|---|---|---|---|---|---|
| 9/15 | 575 | J E Young | Ocoya, Ill. | 3 | | C&A | ✓ | ✓ | |
| 9/16 | 576 | C E. Myers | Nolan, Ill | 1 | | BP&J. | ✓ | ✓ | |
| | 577 | C Scafferdey | San Jose, Cal | 4 | | Wab. | ✓ | ✓ | |
| | 578 | J H Jones | Stout Neb | | 1 | Mail | ✓ | ✓ | Postage 17¢ |
| | | | | | | | | | |
| | | | | | | | | | |

FORM 2.

A branch house not billing direct makes Form 1 in triplicate and the record book, Form 2, is made duplicate loose leaf. A copy of each day's record sheet and a copy of every shipping ticket, Form 1, is mailed to the main office. This system is easily changed to conform to local conditions. —*(J. A. Sutherland.)*

### (294) ACCOUNTING SYSTEM IN THE SHOE MANUFACTURING BUSINESS.

Other countries excel in some industries, but in shoe making we have led for a number of years in style, comfort, finish and magnitude of product. There are a number of firms making over 10,000 pairs daily. One wonders where they go to, but they seem to be disposed of easily. We have originated special machinery to such an extent that we have branch factories in England and Germany and xepert machine operators showing them how to beat us at our own tricks.

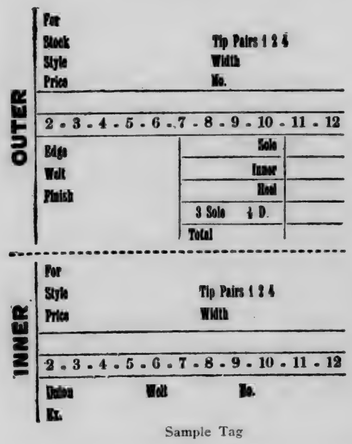




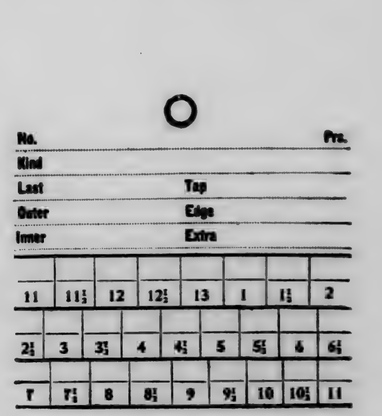
Shoemakers, as a rule, make a fair living, and I have never heard of a strike in the shoe business on account of not being paid a living wage, as has been the case in the textile industries.

Shoe factory accounting differs from some others, in the number of operations necessary to produce the finished product, some 50 or 60, according to the style produced. Large manufacturers run what are called country factories in small towns, where rent, taxes, or power are given by the town to keep money circulating and the people employed at a lower wage scale than in cities given over to the industry where the unions make the prices, and are so well organized that one must buy union shoes and the other necessaries, or not be in good standing.

The manufacturers' samples are shown to the prospective buyers.




Sample Tag

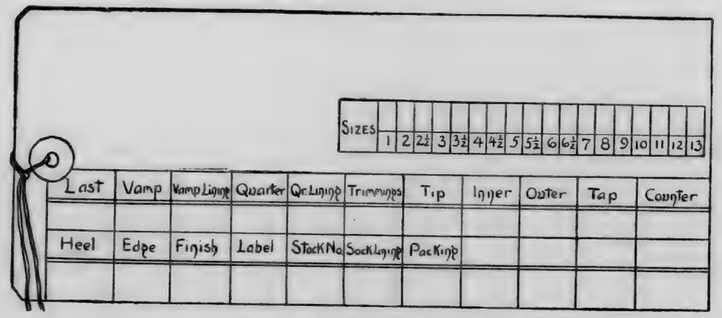



Inner and Outer Sole Tag

They apparently embody all the variations one could wish for, but no, there is needed what is known as a sample sheet, to give kind of last, stock, bottom finish, trade mark, stamp, etc. Sample tags are made out from this sheet, and samples made up six months in advance of the season These tags accompany the shoes through the factory and are tied together and filed in the tag department after samples are shipped.

The office work divides itself into three branches; the tag department, in which the orders are made up to go through the factory; the factory accounting, taking in the time-keeper and clerks checking work done on shoes, which may be slips or coupons, also getting the shoes through on time under what is known as the time and color system; the accounting of sales, purchases, etc.

The samples from which the goods are sold are made sometimes as




Manufacturing Tag. Slipper Dept.

much as a year ahead of the time the style will be worn, especially if in the jobbing trade. Some factories cater to retailers and mail order customers at a large margin of profit, but more salesmen, more clerks in the tag and sales department, help to offset this.

An order is obtained, is copied in a loose leaf order book wide enough for the detail of the number of cases, pairs, sizes, kinds, upper stock, style, last, and width and checking off shipments. The loose leaf system is necessary here as the order book is in almost constant use by each of the three departments in entering, pricing, checking, and hurrying orders.

The sample tags of the customer are consulted. Similar tags are made out from them for shoes in multiples of a dozen, 24, 36, 60, or 72, according to style and size of shoe, children's in 60, or 72 pairs, men's and women's in 12, 24, or 36. The shoes on each tag are called a case. The finer the grade of shoe, the smaller the number of pairs to the case. Manufacturing prices are figured on a 60 pair basis; 72 pairs of children's shoes up to 12½, figure the same as 60 pairs of men's or women's.

The tags are next entered in a factory work book with 20 or 30 vertical columns, printed at the top of column with the different manufacturing operations, and at the left with a number on each horizontal line, and a space for name and detail.

Each tag is entered on a numbered line with the corresponding number entered on the tag. Through the factory the case is traced by this number, and all the work done on the shoe is checked by it. The work book may be split up in two or three sections for as many clerks. The tag may have strung with it, a tip, a lining, and an under stock tag, when it is ready to start on its journey, commencing with the cutting room.

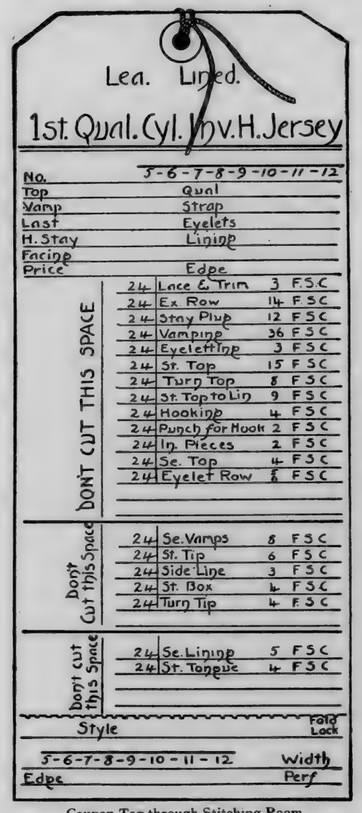
About all the processes are by piece work but this varies greatly in different factories, as well as methods in its accounting. In Brockton, Mass., it is almost wholly done by the coupon system, a coupon tag accompanying each case tag with number of pairs, price, and kind of work on it,



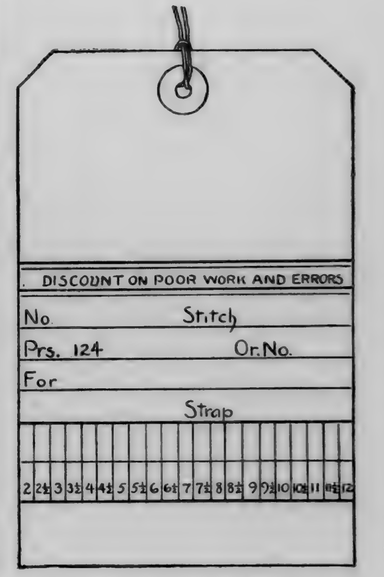


and detached by the workman after finishing. The week coupons are listed by the operator, passed in to the office, checked with the list, paid, and burned. If the coupon is lost, the workman loses his money.

In the checking system the work is passed in on slips daily, or bi-




Coupon Tag through Stitching Room




Listing Room to Packing Room

weekly, giving numbers, pairs, price, total and kind of work. This is entered by workman's initial or number in the work book above described.

Under this system there is no possibility of paying twice for work if properly checked cases can be traced in the factory and poor work charged back. If a man loses a number, it can be traced. It costs more than the coupon system, and there is some trouble from ignorant workmen on passing in wrong numbers.

Sample cases are outside of the regular work, although given a number, and are done mostly on time, costing about one-third more than regular goods.

The shoes reach the packing room, and the case tag comes back to the office, somewhat the worse for wear, is entered in a shipping or bill book by factory number, stock number (by which the jobber traces the shoe), number of pairs, kind, upper stock, style, last, width, and sizes, all abbreviated as much as possible.

Price is next obtained from the order book and the number of cases shipped is checked there and frequently the number of cases of a particular run is checked against the sizes. Bill may be made out from the shipping book and compared with the tags. Many claims came up in connection with shoes short in cases as all the card board boxes go in the wooden case, while one pair of shoes may be spoiled, leaving an empty box. One firm partly solved the trouble by turning the empty box around, so that the label came at the bottom and the blank end at the top.

Where a main and a country factory are run on one set of books, sales and purchases may be entered from the journals in the same ledger in different colored ink, or a distinguishing postmark used, and controlling accounts opened with each factory in the general ledger.

Some shoe manufacturers are running their own stores. Each store may be considered as a customer, charged with merchandise and expenses, and credited with sales. A mail-order business may be taken care of on a card system, if necessary to preserve name and kind of shoe sold.—*(V. W Thompson.)*

### (295) CUSTOMER'S CHECK IN THE SHOE REPAIRING BUSINESS.

This system is designed for shoe repairing establishments or can be used by shoe stores who do repairing and wish to keep that department separate. The total sales could be credited to one ledger account and thus keep a distinct record. The form as illustrated hardly needs any explana-

Combination Repair Sales Record and Customer's Check

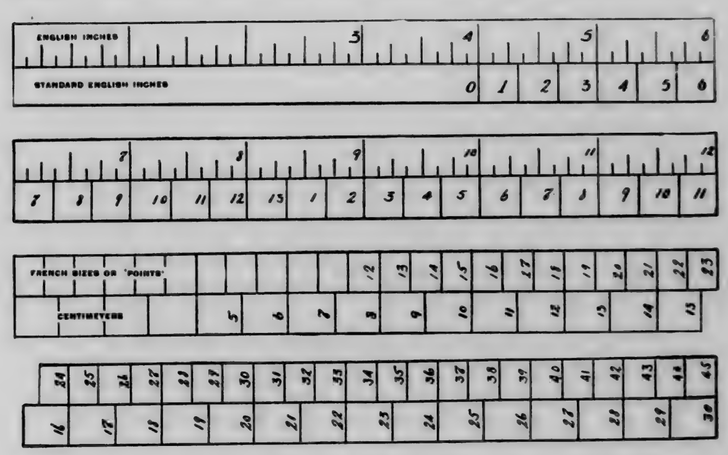
| Good Cobbling Co. | | | Good Cobbling Co. \| 1 |
|---|---|---|---|
| | | 20 | Repairing<br>Patches<br>Remarks<br>Amount 20<br>Date |
| Good Cobbling Co. | | | Good Cobbling Co. |
| | | 75 | Repairing<br>Patches<br>Remarks<br>Amount 75<br>Date |





tion and is easily applied without disturbing any other system that may be in use. When a customer leaves shoes to be repaired the kind of work is checked and the amount entered both in the check and in the column at the left of the check. These checks are separated by a perforated line so that they are easily torn off.—*(C. P. Ritmer.)*

FRENCH METHOD OF DESIGNATING SIZES.—A special agent of the United States government is making a tour of the shoemaking centers of continental Europe. In a recent letter to his home government be related much of interest that he saw during a visit to a number of shoe factories in France. While in that country he observed and gave careful study to the




French method of designating sizes, which, he found, was vastly different from that used by shoe manufacturers in America.

This agent of the United States government forwarded a comparative table of the French and standard English sizes, which, we believe, will be studied with real interest by shoe retailers in this country. The table is shown herewith.

A peculiar point in connection with shoemaking in France is that the manufacturers there do not manufacture half sizes, as is commonly done in this country.—*The Shoe Retailer.*

### (296) ACCOUNTING FOR THE RETAIL SHOE BUSINESS.

This system of stock-keeping originated 11 years ago, and in that length of time it has been put to the test many times and in many ways, and has always come out on top. By this system a dealer can tell at a moment's notice from whom a certain shoe came, and when, the kind of shoe, the

size and width. If it is sold and again returned it also tells by what clerk it was sold, the price received and the day it was sold. If the customer comes back and complains that the shoes have not worn as well as they should, considering the price paid for them, etc., the dealer can tell exactly to a day how long the customer has had the shoes.

But to do this it is necessary to live up to the system. Here is the plan:

In the first place, you must have your stock book properly ruled and numbered, as shown in Exhibit 1. Then you require a good, hard, rotary rubber stamp that automatically prints any number desired, as shown in Exhibit 3. The stamp should have letters on the first part of it and then numbers, either one letter or one number. If you want to take the men's, boys' and youths' lines first, use the letter A and the number 1 up to 99999, then B, and so on up to M, and the balance of the letters, N to Z, for women's, misses' and children's shoes. Each and every pair of shoes received from the factory or wholesaler must be entered on the books, with date received, the kind, who from, the size, the width, the cost, in your own cost mark, and the selling price in plain figures. The number given each

| Date Rec'd 1906 | No | Kind | From | Size | Width | Cost | Sell | Clerk | Date Sold |
|---|---|---|---|---|---|---|---|---|---|
| 1/22 | A301 | Mens Pat Colt Blu | Hanan | 7 | D | Asc | 6.00 | 1 | 5/5/06 |
| | 302 | Rex | " | 7- | D | " | " | | |
| | 303 | " | " | 8 | D | " | " | | |
| | 304 | " | " | 8- | D | " | " | | |
| 2/11 | 305 | Men's Gun Met Bal | J.P. Smith Co | 6- | B | Ret | 4.00 | | |
| | 306 | 46 Last | " | 7 | B | " | " | 3 | 5/3/06 |
| | 307 | " | " | 7- | B | " | " | | |
| | 308 | " | " | 8 | B | " | " | | |
| | 309 | " | " | 6 | C | " | " | | |
| | 310 | " | " | 6- | C | " | " | | |
| | 311 | Boy's Bx Cf Bal | Lehigh Shoe Co | 2- | D | fsc | 2.10 | | |
| | 312 | 26 Last | " | 3 | D | " | " | | |
| 3/9 | 313 | " | " | 3- | D | " | " | 3 | 3/14/06 |
| | 314 | " | " | 4 | D | " | " | | |
| | 315 | " | " | 4 | D | " | " | | |
| | 316 | " | " | 4- | D | " | " | | |
| | 317 | " | " | 5 | D | " | " | | |

EXHIBIT 1.





pair of shoes should be used for the mate number. First, the number is stamped on the face of the carton in the upper right-hand corner, then the shoes are stamped on the soles or marked with a scratcher on the sole of each shoe. Then you stamp on the lining of the left shoe, just below the top facing, the same number, using red indelible ink for this purpose. After the lot shoes has been marked in this way, they are ready to be placed on the shelves.

This system enables you to put your goods up quickly if they have been left on the ledge during the rush. Even your extra clerks can put away stock without making errors.

Suppose Clerk No. 1 takes down a pair of shoes, No. A301, as described

**Exchange Slip**

Date 1/22 Clerk. 3

No. A301 – Returned

Taken – No. F65

EXHIBIT 3.

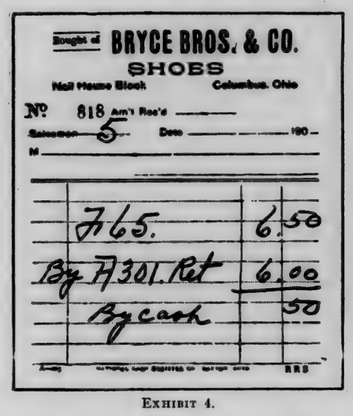

Bought of BRYCE BROS. & CO.
SHOES
Nail House Block Columbus, Ohio
No. 818 Am't Rec'd ——
Salesman 5 Date —— 190—
M
F65. 6.50
By F301. Ret 6.00
By cash .50

EXHIBIT 4.

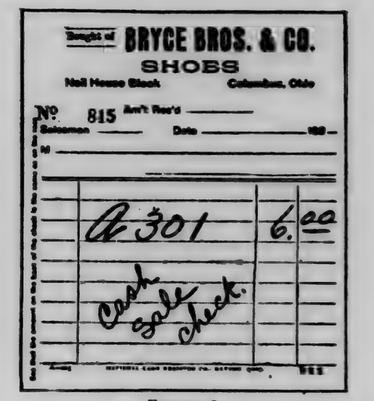

Bought of BRYCE BROS. & CO.
SHOES
Nail House Block Columbus, Ohio
No. 815 Am't Rec'd ——
Salesman —— Date —— 190—
M
A301 6.00
Cash sale Check.

EXHIBIT 2.

by the number. They are men's patent colt bluchers, and on your stock book are described as follows:

| Date received. 1906. 1-22 | No. A301. | Kind. Pat. Colt. Blucher. | From. Hanan. | Size. 7 |
|---|---|---|---|---|
| Width. D | Cost. Asc. | Sell. 6.00 | Clerk. 1 | Date. Sold 5-5-06 |

If the clerk sells this pair, he makes out his sales check as shown in Exhibit 2. This sales check is in duplicate. The clerk takes both parts to the cashier, who stamps both the original and duplicate "Paid." The cashier keeps the original, and the clerk delivers the duplicate, with the shoes, to the man at the wrapping counter. The duty of the man at the wrapping counter is to see that the number on the duplicate is the same as that marked on the sole of the shoe or stamped on the inside. If the numbers correspond, the shoes are done up and the clerk delivers the package to the customer.

Now, the original part of the sales check goes to the office and is checked on the book as shown in Exhibit 1. Here you have a complete record of this particular pair of shoes from the time you received them up to the time they were sold. Suppose the party who purchased the shoes brings them back to be exchanged and the clerk who now waits upon the customer is No. 5. He takes the shoes to the cahsier's desk, with the paper or box or whatever they were returned in. The cashier is shown the number on the sole or inside, A301, and if the price ticket is torn off, the cashier ascertains the price of the shoe from the clerk and then makes out an exchange slip and hands it to the clerk.

The shoes are returned to the department or section of stock where they belong, and Clerk No. 5 gives the customer a pair of shoes stamped F65. This number is marked on the exchange slip by the clerk, as shown in Exhibit 3. If the sale price of F65 is 50 cents more, the clerk makes out a cash sale, recording the exact amount, as shown in Exhibit 4. These slips go to the office in the same manner as cash or charge slips.

Suppose that in three months this customer returns and complains that the shoes did not wear well and states he has only had them six weeks at the most. You ask the customer to take off the left shoe so that you may examine it and see how badly it is worn. Looking inside, you see that the letter and the number F65, stamped on the lining, is badly soiled and that the size and case numbers are obliterated, but you plainly see F65, because you have used red indelible ink in stamping. You now go to the office and look up number F65 on the stock book, and that record gives you the day and date sold, who sold the shoes, the size, width, price and make, etc., also the fact that the customer has had the shoes three months instead of a little over a month, as stated.

By this method of keeping stock, the proprietor or manager knows whether the shoe has given proper service or not, and whether the customer has grounds for a genuine kick. It also gives information as to how different lines of goods are wearing.

Another thing, a clerk cannot sell goods without being detected for any other price than they are marked. Another important thing is this, when a customer wears out a new pair, the manager, or the one in charge,





should O. K. the duplicate to the man wrapping up the old shoes, showing the transaction to be correct.

The stock books are indexed so that it is possible to find each lot from any one manufacturer. Lot numbers can be used with the system. This system is in use by some of the best dealers in the United States and is considered by them to be the most perfect system in use today. Here are just a few of the many advantages in using this system:

It keeps a complete record of each pair of shoes ever purchased.

It gives a perfect record of what lines you have each day in stock.

It tells exactly how many pairs you have had from any one manufacturer during the season and how they were sold.

It keeps a check on your salesmen and their sales.

It makes salesmen more careful in fitting shoes, for if shoes sold by No. 1 are exchanged and No. 3 makes the exchange, No. 3 gets the credit for the sale. In this way salesmen are made to take care of their own exchanges.

You can take inventory from your stock books. I know one instance where a stock of $23,000 was inventoried in seven hours and figures given. It took two days and a half the old way, and when it was completed there was $37 difference in favor of the single number system.

There are many good systems in use, but I believe this is the most simple, with the added advantage that it does not mark the cartons or the shoes as some systems do, because the single number does the entire business.—The Shoe Retailer.

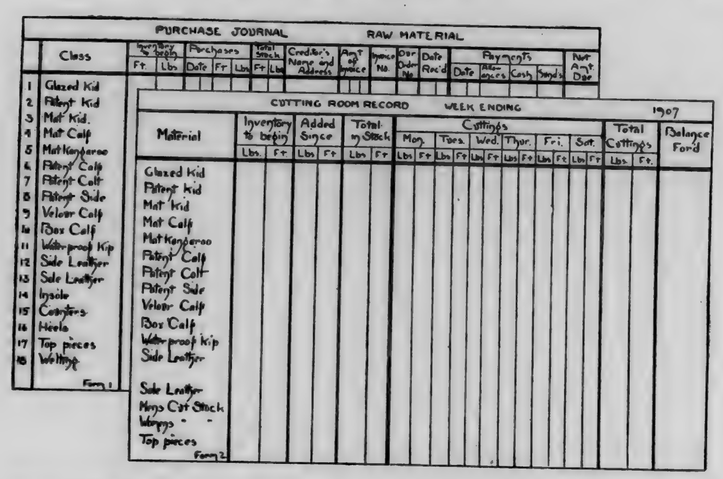
## (297) COSTS OF SHOE MANUFACTURING.

In this line of cost accounting, there is a multiplicity of detail, which sifts down rapidly, under intelligent supervision, into orderly and plainly understood final results, the amount of technical skill required in the evolution of the various cost systems in vogue being, however, quite different from that required in other lines of business.

Whatever methods of grouping the business records is adopted in a voucher record book (or far better a loose leaf system of accounting), the cost sheets, once well arranged, supplement in a most excellent and accurate manner, the ordinary daily records of the business, and form an auxiliary to such records, the value of which cannot be too highly estimated.

The object of the cost cards of various classes used in the different departments, and of the periodical cost sheet itself, is to show a double kind of cost—first, of the various styles of shoe made, and second, of the different sizes under each style.

Regarding the ordinary form of purchase journal (Form 1) some concerns employ on the other side, a "consumption account," taken from the process cards, both for fully completed and partially complete cases of


PURCHASE JOURNAL — RAW MATERIAL

| | Class | Inventory to begin | | Purchases | | | Total Stock | | Creditor's Name and Address | Amt of Invoice | Invoice No. | Our Order No. | Date Rec'd | Payments | | | | Net Amt Due |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | Lbs. | Date | Ft. | Lbs. | Ft. | Lbs. | | | | | | Date | Discounts | Cash | Bonds | |
| 1 | Glazed Kid | | | | | | | | | | | | | | | | | |
| 2 | Patent Kid | | | | | | | | | | | | | | | | | |
| 3 | Mat Kid | | | | | | | | | | | | | | | | | |
| 4 | Mat Calf | | | | | | | | | | | | | | | | | |
| 5 | Mat Kangaroo | | | | | | | | | | | | | | | | | |
| 6 | Patent Calf | | | | | | | | | | | | | | | | | |
| 7 | Patent Calf | | | | | | | | | | | | | | | | | |
| 8 | Patent Side | | | | | | | | | | | | | | | | | |
| 9 | Velour Calf | | | | | | | | | | | | | | | | | |
| 10 | Box Calf | | | | | | | | | | | | | | | | | |
| 11 | Waterproof Kip | | | | | | | | | | | | | | | | | |
| 12 | Side Leather | | | | | | | | | | | | | | | | | |
| 13 | Sole Leather | | | | | | | | | | | | | | | | | |
| 14 | Insole | | | | | | | | | | | | | | | | | |
| 15 | Counters | | | | | | | | | | | | | | | | | |
| 16 | Heels | | | | | | | | | | | | | | | | | |
| 17 | Top pieces | | | | | | | | | | | | | | | | | |
| 18 | Welting | | | | | | | | | | | | | | | | | |

Form 1

CUTTING ROOM RECORD WEEK ENDING 1907

| Material | Inventory to begin | | Added Since | | Total in Stock | | Cuttings Mon. | | Tues. | | Wed. | | Thur. | | Fri. | | Sat. | | Total Cuttings | | Balance Ford |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lbs. | Ft. | Lbs. | Ft. | Lbs. | Ft. | Lbs. | Ft. | Lbs. | Ft. | Lbs. | Ft. | Lbs. | Ft. | Lbs. | Ft. | Lbs. | Ft. | Lbs. | Ft. | |
| Glazed Kid | | | | | | | | | | | | | | | | | | | | | |
| Patent Kid | | | | | | | | | | | | | | | | | | | | | |
| Mat Kid | | | | | | | | | | | | | | | | | | | | | |
| Mat Calf | | | | | | | | | | | | | | | | | | | | | |
| Mat Kangaroo | | | | | | | | | | | | | | | | | | | | | |
| Patent Calf | | | | | | | | | | | | | | | | | | | | | |
| Patent Calf | | | | | | | | | | | | | | | | | | | | | |
| Patent Side | | | | | | | | | | | | | | | | | | | | | |
| Velour Calf | | | | | | | | | | | | | | | | | | | | | |
| Box Calf | | | | | | | | | | | | | | | | | | | | | |
| Waterproof Kip | | | | | | | | | | | | | | | | | | | | | |
| Side Leather | | | | | | | | | | | | | | | | | | | | | |
| Sole Leather | | | | | | | | | | | | | | | | | | | | | |
| Kips Cut Stock | | | | | | | | | | | | | | | | | | | | | |
| Weltings | | | | | | | | | | | | | | | | | | | | | |
| Top pieces | | | | | | | | | | | | | | | | | | | | | |

Form 2

shoes; and the cost accounts are only summarized monthly as a rule, unless some critical emergency arises in the process of manufacturing, or a suspicion of unjustifiable waste and loss, which may temporarily necessitate making up the sheets weekly, notwithstanding the amount of labor involved.

The work of the cutting department comes first; and on receipt of an order for a certain number of cases of a given size and style of shoe, measurements of all the kinds of leather and cloth and supplies are on hand, filed in cabinets or recorded in specially ruled books, showing precisely the scores of items large and small, which enter into the cost of making up that special grade of shoe, even down to the amount of twine, glue, paste, eyelets, lacings, thread, tacks, etc. This is for the raw material employed, however, the prices or value of the constituent items being filled in by the office, and differing from period to period, according to the fluctuations of the market.

The cuttings passing through the hands of the foreman of that department, are not necessarily made to order, but the leather, cloth and other supplies which are "cut" may be prepared in advance of orders and are usually so prepared; but the cuttings must be so arranged upon the long receiving tables, or so classed in compartments or upon shelves, that it may be seen, at a glance, just how much material is on hand for a case or a dozen cases of the special variety of shoe represented.

This method of classification, it will be observed, is of great value in inventory stock.

Frequent examinations of the waste pile in the cutting room will soon





prove whether or not good goods are being thrown away in the process of manufacturing.

CUTTING ROOM RECORD.—Form 2 shows how the cutting room record is made up, each column being sectionalized in pounds and feet, as the raw material is bought in both ways and the cuttings made accordingly. Some concerns, before the last column headed "balance forward," insert another column for the record of the weekly waste of material in both pounds and feet.

Now, for the process cards in Form 3 showing the departments through which the shoes pass en route to the shipping department or salesroom. This form provides for every possible operation upon a pair of shoes, and checking columns are provided to indicate in advance, the special operations to which ordered cases of shoes are to be subjected, so as to prepare them for transmission to the customer.

This manual of directions is duplicated for the various departments through which the order passes during the filling of that order; and from it, in the second column, the cost is made up.

On the reverse of this form is usually another set of directions or

PROCESS CARD

| FITTING ROOM | FITTING ROOM | FITTING ROOM | BOTTOMING ROOM |
|---|---|---|---|
| Sewing Quar: | Brot Forward | Vamp 2nd row | Brot Ford |
| " Vamp | Stitch Tips | Toe seaming | Heel Burnishing |
| " Foxings | Rast Fly | Stitch Tongue | Seat Wheeling |
| " Tips | Cement Vamps | Barring | Edge Setting |
| " Stays or Fly | Rast Lace Stay | Trimming | Sand Papering |
| " B. Strap | Stitch " | Casing | Cuffing |
| Cement and Trim | Saw Stitching | Royalty | Brushing |
| Seaming | Second closing | Weekly help | Finishing |
| Staying | Rast lining & fitting | Total | Tacking Rangers |
| Lapping | Beading | BOTTOMING ROOM | Pricking Edges |
| Webbing | Rast Gore | Lasting | Slugging |
| Making Linings | Rast Slip and Trim | Tacking | Fudge Wheeling |
| Emb Top band | Stitching | " Welt | Beading Edges |
| Turn and skip Quar: | Work B.H. | Sewing " Spring | Cleaning |
| " " " Vamp | Pin " " | Stocking | Total |
| " " " Foxings | Cord " " | Fair Stitching | SHIPPING ROOM |
| " " " Tips | Mark Buttons | Leveling | Packing |
| " " " Stays or Fly | Sew on " | Seat Nailing | Sock-lining |
| " " " B. Strap | Tacking | Second Lasting | Embossing |
| Rast Foxings | Punch and Eye | Heeling | Ironing |
| Sewing on Foxings | Worked Eye | Heel Leveling | Lacing |
| " 3rd Row " | Bind Tongue | " Trimming | Total |
| " Counters | Bind Vamps | Edge " | |
| Sides and Tips | Binding | Scouring | |
| Back Straps | Felling | | |
| Rast Tips | Vamping | | |
| Carried For'd | Carried For'd | Carried For'd | |

FORM 3.

Style_____ SAMPLE NO._____

Sells at $_____ per Dozen

| DESCRIPTION OF UPPERS | | | LABOR | | |
|---|---|---|---|---|---|
| Upper Leather | | | Brot For'd | | |
| Tops | | | Boxes | | |
| Tips | | | Bows | | |
| Outside Stay | lace | | | | |
| | back | | | | |
| Lining | | | | | |
| Vamp Lining | | | | | |
| Re-inforcing | | | | | |
| Leather Quar Lining | | | | | |
| Stock Lining | | | | | |
| Top Facing | | | | | |
| Trim | Eyelet stay | | | | |
| | Bot. Fly | | | | |
| Tongue | | | | | |
| Button Stay | | | | | |
| Studs | | | | | |
| Eyelets | | | | | |
| Silk | Buttonhole | | | | |
| | Eyelet | | | | |
| Web | | | | | |
| Binding | | | | | |
| Carried Forward | | | Total | | |
| | | | BOTTOM STOCK | | |
| | | | 12 Pr. Outsoles @ | | |
| | | | " Slipsoles @ | | |
| | | | " Insoles @ | | |
| | | | " Stiffening @ | | |
| | | | " Heels @ | | |
| | | | " Top Lifts @ | | |
| | | | " Twin Shanks @ | | |
| | | | Welting | | |
| | | | Filler Cork | | |
| | | | Felt | | |
| | | | Total | | |

| Cutting Uppers | | |
|---|---|---|
| " Linings | | |
| Stock Fitting | | |
| Fitting Room | | |
| Bottoming Room | | |
| Shipping Room | | |
| Foremen | | |
| Total | | |
| TOTAL COST | | |
| Uppers | | |
| Bottom Stock | | |
| Nails and Findings | | |
| 12 Cartons | | |
| Commission | | |
| Loss | | |
| Expense Office | | |
| " Factory | | |
| Lasts and Patterns | | |
| Total | | |

FORM 4.

processes for the material part of the order, the opposite side being for the operations only. This is marked as Form 4.

At the end of this last form it will be noted that the sundry costs of manufacturing are not so fully classed as a strict adherence to the best accounting methods requires; it does not provide in detail for prorata charges of insurance, advertising, waste, depreciation on equipment, interest and discount, and some few other items properly chargeable to manufacturing, but summarizes under two brief captions "expense factory" and "expense office."

In other cases the extensive detail of this card shown by Form 3 and its reverse in Form 4 is changed into special tickets or sheets for each department, as shown in Form 5 where the work of the "bottoming room" alone is illustrated for a case of special shoe.

Again, some factories receive large consignment orders, from wholesalers who send in their own specifications (the specification sheet illustrated in Form 6), listing in detail, the class of work to be done in filling that special order, for the number of cases given; and frequently the same class and size of shoe is ordered upon two or more forms like this, where





Grade_____

Case_____ Width_____ Pairs_____ Pattern No._____

Lining_____ T. Facing_____ Flyked or Embroidery_____ Label_____

| Width | 1 | ½ | 2 | ½ | 3 | ½ | 4 | ½ | 5 | ½ | 6 | ½ | 7 | ½ | 8 | ½ | 9 | ½ | 10 | ½ | 11 | ½ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

Last_____ Sole_____ Iron_____

Edge_____ Slip or Welting_____ Finish_____

FORM 5.

some slight variation in the construction detail is to be noted for the information of the manufacturer.

SHEETS KEPT IN BOOKS—As some of these order sheets measure 12x20 inches, books are provided for their reception, filing and indexing, with provisions for notation spaces during the filling of the order and on its completion, indicating amount of material, labor, general cost, date of completion, and of shipment, amount charged, folio of ledger in which entered and similar data.

Now there is necessitated a departmental cost system, as well as a manufacturing cost system; that is, a system by which the separate cost of carrying on the cutting room, the fitting room, the bottoming room, and the finishing and shipping departments can be reached. The findings, which include scores of little items, some of which have been already specified, are listed on this special form of reporting sheet for the different departments, according to the classses of supplies used in each; these supplies being inventoried carefully at the end of each cost period, and the amount used in each department checked up to see how much waste or loss has occurred. In this departmental figuring, the prorata of salaries, insurance, fuel and

FACTORY ORDER

| Cases | Pairs | Description | Sizes | Soles | Last | Edge | Finish | Counter | Toe | Top | Gore | Lining | Facing | Back Stay | Fastenings | Heels | Stamp | Label | Stencil | Customer's No. | Coupon Numbers | | | | | Index |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 12 | Mens X cf | 6-6 | ½S | G | 12 | | | | | | | | | | 4 | | 76 | DRL | 26-35<br>36-45<br>46-95 | 7560<br>7570<br>7580 | 7561<br>7571 | 7562 | | 7569<br>7579 | A<br>DDA |

FORM 6.

light, etc., come in and are assigned to each in correct instalments according to well known accounting principles; and then, at the end of agreed periods, the amount of material furnished, in different processes or stages of completion, is credited up to the respective departments, to show their returns for the charges made against them.

This is not done in many cases, however, notwithstanding its value as one of the accounting features of a shoe manufactory, owing to the time and expense required.

We come now to what may be termed a summary cost sheet, which in reality, is a duplication in some sense, of the previously stated forms, but it is much more comprehensive; and it can be readily seen how its

SUMMARY COST SHEET

| Order No. | Style | Size | Finished Work | | | Unfinished Work | | | No. of Cases Finished | No. of Cases Sold | Ref. Fol. | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Raw Material | Findings | Other Costs | Raw Material | Findings | Other Costs | | | | |
| | | | | | | | | | | | | |

FORM 7.

blanks can be filled up from the summarizing of the other cards and sheets illustrated. The idea is to show the entire history of the cost departments upon a single instead of upon a number of isolated although closely related sheets or process cards.

This, Form 7, would have to be in actual practice at least 15x25 inches and provide for 100 ruled lines for giving adequate expression to the conditions which it sets forth. As will be noted, it is provided with reference columns, so that its footings can be checked with the partial returns of other sheets and cards which it takes up and groups in synthetic form.

SOME IMPORTANT CONSIDERATIONS.—But in its use, a number of important considerations come into use, and they are listed as follows in conclusion:

(a) Whatever valuations for the raw material are assumed at the start, for use on the cost sheet, must be retained in both the usual and the so-called "departmental cost sheet," until the end of the month, no matter how much the cost of the raw material may vary during that time; this to secure the true relations of the variant cost items.

(b) Considering the fact that at the present time, there is a slow but steady increase in the value of all classes of leather, and other shoe manu-





facturing supplies, the monthly cost sheets will have to be changed so as to reflect this advance, the changing trade conditions, so that the estimates used in figuring up at the end of each successive month, will have to be slightly increased in framing the cost sheet for the ensuing month, so long as the market continues to advance; and again, the selling price, having to be advanced of necessity, to keep pace with the increased raw material cost, that feature (of selling), would naturally depend absolutely upon this changing of values.

(c) In order to reach the correct cost of each size in the different styles of shoe turned out, two adjustments will be needed; first, to find out from the cards of various cost sheets, the cost for all the styles separately; and after this is done, we can proportion the general costs for each size in each style on the basis of the material costs for that special style. This, it will be noted is a different method of going to work from that illustrated in Form 4 at the end where the total cost account is made up, and this recommendation is made from the very incompleteness of that form. The raw material is the only basis upon which these general costs can be prorated (insurance, taxes, advertising, fuel and light, superintendence, depreciation, commission, etc.).

(d) The careful analysis of cost made in this way will check leaks, waste, and other forms of loss and trace to the proper source, the cause of the same.

(e) It does not matter whether the costs are determined upon 12 case lots or 100 case lots of shoes made, if the correct cost principles are carried through the process cards illustrated.

(f) In listing the various findings named in manufacturing, it is much better to have them printed alphabetically instead of the somewhat haphazard method often used.

(g) Care will have to be used in preparing cost sheets, to make due allowance for goods returned to and by the company during the period reported upon; this, to keep correct tab on stock in trade and the gross and net earnings.

(h) It is not possible to always advance the selling price to correspond with the advance in the cost of the raw material, some provision will have to be made in connection with each monthly cost sheet, explaining the apparent loss in returns, as compared with other periods; and if, through extraordinary skillful management and purchasing ability, (such as securing goods at a bankrupt or fire sale) does enable the manufacturer to make his cost account for a given month or series of months, less than previously, that fact would have to appear as an item in the explanation memoranda at the bottom of the cost sheet, or tabulated on a specially ruled memorandum sheet to be attached to the cost sheet itself.

*—(Preston H. Grover.)*

## (298) SYSTEM OF COMPARATIVE RECORDS AND THEIR ADAPTATION.

I wish to state that I have been using this system of comparative records in the leather business for a number of years with the most beneficial results, and I have changed the nature of the business only to show the reader that the system is applicable to any business which can be sectionalized or whose goods can be classified.

Daily comparison of Sales for months of August - 1906-1907

SHOES

| | 1 Ladies | 2 Gents | 3 Rubbers | 4 Repairing | 5 Sundries | 6 Total Daily 1907 | 7 Total Daily 1906 | 8 Cumulatively 1907 | 9 Cumulatively 1906 | 10 Increase or Decrease | 11 Weather Conditions | 12 | 13 1907 | 14 1906 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 35 | 70 | | 15 | 2 | 122 | 105 | 122 | 105 | 17 | | Jan | 5822 | 5726 |
| 2 | 40 | 92 | | 24 | 4 | 160 | 155 | 282 | 260 | 22 | | Feb | 10944 | 10726 |
| 3 | 65 | 135 | | 20 | 13 | 248 | 170 | 530 | 430 | 95 | | Mar | 16057 | 16088 |
| 4 | | | | | | | 260 | | 690 | | | Apr | 21867 | 21988 |
| 5 | 30 | 60 | | 20 | 5 | 115 | | 645 | | (50) | | May | 27130 | 27088 |
| 6 | 35 | 70 | | 16 | 5 | 126 | 130 | 766 | 820 | (54) | | Jun | 33117 | 33170 |
| 7 | 60 | 72 | | 10 | 7 | 144 | 140 | 910 | 960 | (50) | | Jul | 41599 | 41870 |
| 8 | 40 | 80 | | 28 | 10 | 163 | 170 | 1073 | 1130 | (57) | | Aug | | 49276 |
| 9 | 58 | 101 | | 30 | 3 | 172 | 165 | 1245 | 1295 | (50) | | Sep | | 49276 |
| 10 | 125 | 160 | | 40 | 8 | 323 | 160 | 1568 | 1455 | 113 | | Oct | | 53136 |
| 11 | | | | | | | 290 | | 1745 | | | Nov | | 57716 |
| 12 | | | | | | | | | | | | Dec | | 64058 |
| 13 | | | | | | | 155 | | 1900 | | | | | |
| 14 | | | | | | | 162 | | 2062 | | | | | |
| 15 | | | | | | | 133 | | 2195 | | | | | |
| 16 | | | | | | | 112 | | 2307 | | | | | |
| 17 | | | | | | | 150 | | 2457 | | | | | |
| 18 | | | | | | | 285 | | 2742 | | | | | |
| 19 | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | |
| 21 | | | | | | | 140 | | 2882 | | | | 209 | |

FORM 1.

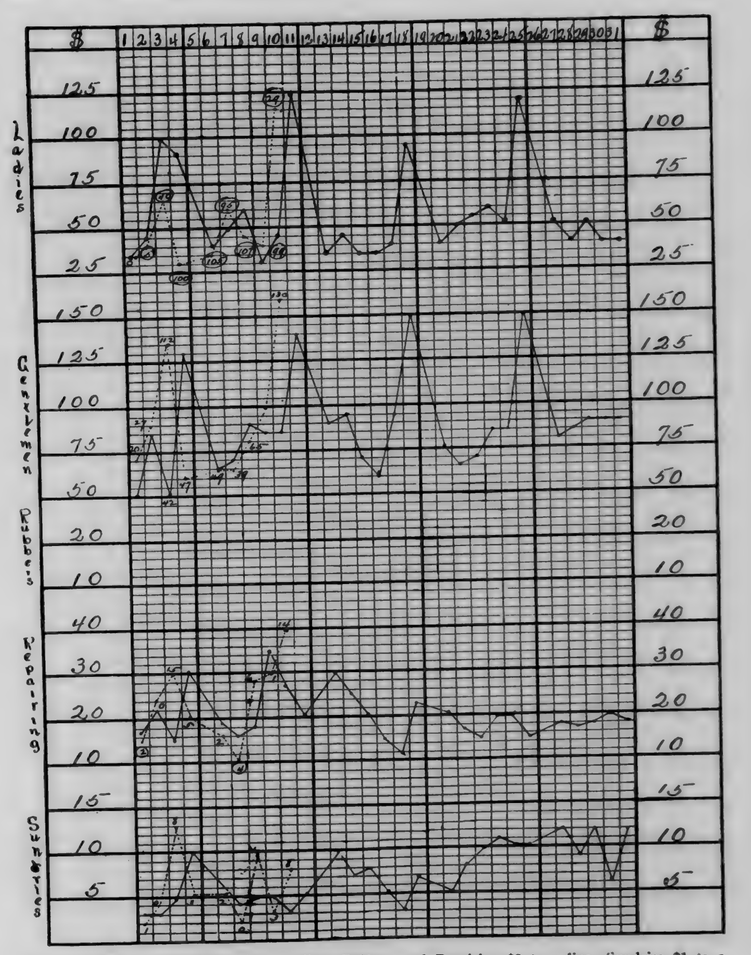
As the space is limited I will not go into the details of the accounting methods used in order to secure the data necessary to compile the facts as shown on the statement and graphic charts but will say that they should be along scientific lines, also that when once properly installed it will require less time to keep these comparative statements and charts up to date than it does to write the foregoing paragraphs.

By referring to Form 1, comparative statement, you will notice that I have divided the shoe business into five divisions, represented by columns 1 to 5, showing the daily sales in dollars and cents. Columns 6 and 7 show the daily sales and are used in making the daily comparisons. Columns 8 and 9 show the sales cumulatively and afford the information at a glance as to how the month is going.

The column 10, increase or decrease, shows the increase or decrease in a sum total from day to day. The first day of the month shows an increase of $17, the second and third likewise show increases or $95 for the three days. These figures are recorded in black. All decreases are shown in red but to designate the decreases on the statement herewith I



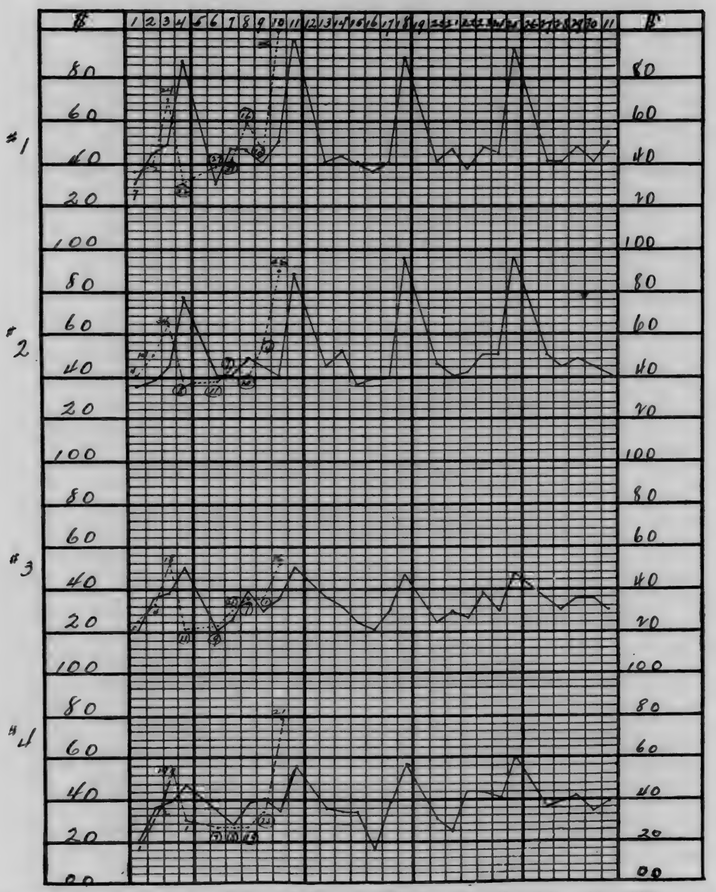





FORM 2—Ladies and Gentlemen $5 to a line—Rubbers and Repairing $2 to a line—Sundries $1 to a line—Department chart showing comparisons and net increase and decrease in sales—"O" around figures denotes decrease.

have placed a circle around the amounts showing a decrease. All figures pertaining to 1906 are shown in red.

Column 11, weather conditions, if properly kept will very often show why the sales of a certain day last year are ahead of the sales of the cor-



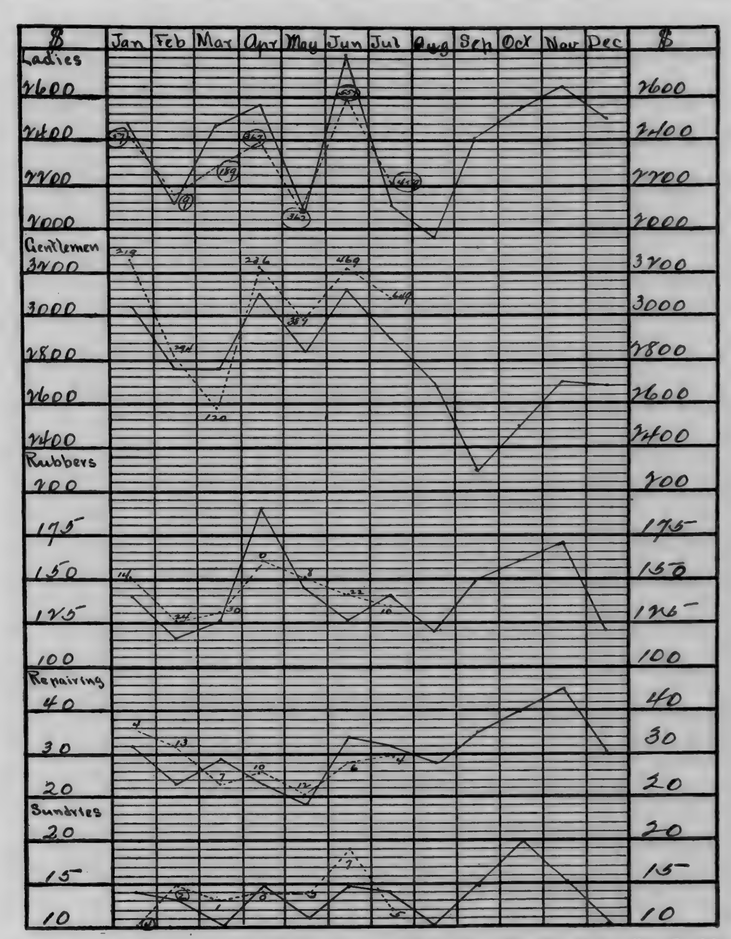

FORM 3—$4 to a line—Salesman's chart—Daily sales—Solid lines 1906—Dotted lines 1907—"O" around figures denotes decrease.

responding day of this year. Last year the weather could have been ideal while this year it was a rainy or otherwise bad day.

The last section of this form shows the monthly sales cumulatively and directly below this calculation will be found the sum of $209. This shows the increase, in dollars and cents, to August 1st. By referring to the daily sales, columns 6 and 7, we find that they show an increase of $123 for the month.








FORM 4—Ladies and Gentlemen $40 to a line—Rubbers $5 to a line—Repairing $2 to a line—Sundries $1 to a line—Solid lines 1906—Dotted lines 1907—Monthly chart showing comparisons of sales, also net increase and decrease of each department—"O" around figures denotes decrease.

Naturally a manager would take it easy and feel contented knowing that his business is on the increase.

The fact of an increase is plain on the surface but would it not pay him to analyze his sales, dig beneath the surface? Probably he will find something that will place an entirely different light upon the subject.

Abnormal gains in one department may cover losses in some of the others and still the business could show an increase on the comparative statement.

In placing records and data before the manager in graphic form, I claim he can, with practically no calculation, see how his business is going, as a whole or by department. While Form 1 shows an increase of $123, Form 2 is necessary to show that all is not gold that glitters. A glance tells that while it is true that we increased our sales to the amount of $123, it is also true, nevertheless, that the sales of ladies' shoes are on the decrease and have been so all during the month of August.

This should be sufficient to make any manager sit up and take notice. His next move would be to see how his salesmen are doing. Are they holding their own or are they decreasing? His first thought, no doubt, would be that some one of his selling force was not keeping abreast with his sales of the preceding year. It might, however, be only too true that one is falling behind in his sales while the others are increasing sufficiently to cover up the losses of the delinquent salesman. It is a case which needs investigation.

By referring to Form 3 we find that each and every salesman is showing an increase. Here is a statement of affairs which needs be looked after. A business shows a net increase of all departments but on analyzing the departments we find one is losing daily and the others, by abnormal increases, carry the loss and show an increase on the surface of facts.

The loss in this department can not be placed on the selling force as the records show that they are selling ahead of their record of a year ago.

By referring to Form 4 you will note that the ladies' shoe department shows a decreasing tendency. I dare say any up-to-date manager would have taken means to stay the decrease long before the month of August and at the same time arrived at the conclusion that the patronage bestowed upon his house by the ladies is drifting elsewhere.

These records properly compiled will keep a manager posted as to what his business is doing, the standing of the various departments and the record of his selling force, and if he heeds the warning thrown out by these charts he will always be ahead and never hang out the signal of distress.

### (299) BOSTON BANK LEDGER.

See Balance Ledger.

### (300) BOUGHT INVOICE BOOK.

See Purchase Record.

### (301) BOTTLING WORKS—ACCOUNTING SYSTEM FOR.

All accounting systems are similar in principle, differing only in the





varied application of these principles, that is, in the various forms used in carrying the transactions into record.

Our business differs from most others, in that we have two elements to contend with, namely, manufacturing and purchasing finished product, the sale of which we carry under the caption of Manufactured Goods and Merchandise Bought. Our manufactured goods are sold in valuable containers which necessarily must be returned, in order for us to realize a small margin of profit, and one of our objects in view is that we must carefully and systematically record our shipments.

Our organization, however, is the first center of our interest, as one cannot readily understand the working of our business until he is acquainted with it. As charts can express more on one page than columns of figures and paragraphs of writing on another, we use this method of illustration, and will then draw your attention to our chart of organization which expresses the elements entering into our business.

Taking up our organization, one can readily see the advantages accruing from the systematic arrangement of the different departments. We have at the head of our business the business partners who are the highest authority in our organization. Directly under them comes the general manager who is the virtual head of our business. He has authority over all departments, and to him do all of the departments report. Each department head in turn has charge of his department and its workings. Our department managers now have a basis and foundation for all their actions.

This division of our business is but the foundation of our organization, and as it stands would work well, but not near so perfect were it not for the definite written instructions issued to the different department heads, which method averts all cause of conflict of authority, at the same time stimulating co-operative interest, "the vital being of a successful business."

Having charted our organization, we use this graphic method of illustration throughout our business, as we find we can so arrange our costs that they will be as much of a unit in our system of accounting as the remaining elements.

This brings us to the method or system of recording our different transactions, and from chart appended herewith, one cannot but help notice the unit system to which the different record books adapt themselves. Each form of record being as a unit of a unit, centering upon the general ledger at its terminal. In order to thoroughly understand this unit system of accounting, it is necessary to bear in mind that every record must "fit in with the rest," otherwise incomplete without it.

All of our representative accounts are carried in our general ledger as our balance sheet shows, thus centralizing all items under their respective headings and in concise form. This ledger carries controlling accounts

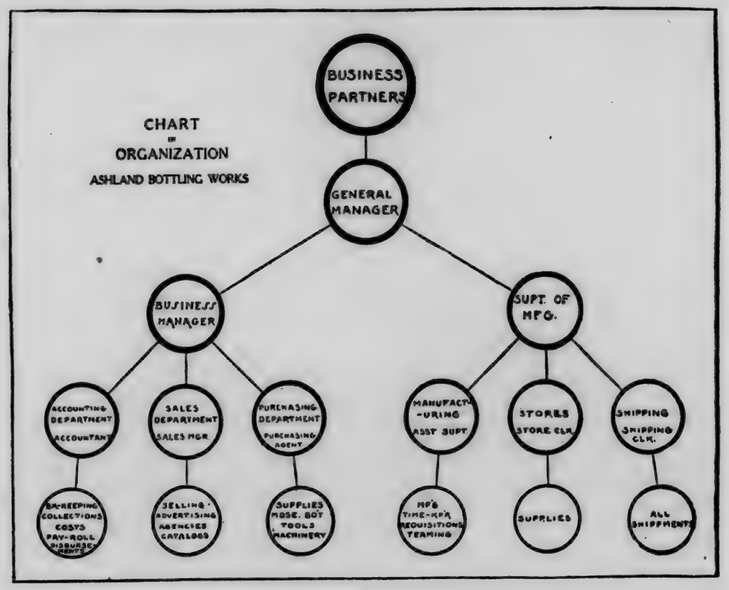
with the different ledgers, and from these accounts can be determined the exact balance of the ledgers, which for ready reference is of considerable value.

In our cash journal or cash journal voucher record, we have columns for distribution to the different ledgers as well as for our current expenses and miscellaneous items. The footings of the ledger columns as posted to the general ledger will give us the exact condition of these subservient ledgers. This method of recording transactions gives us data, which is of considerable value in making comparative statements.

Comparisons may be readily made of sales in different territories as well as of collections.

Our general ledger is dependent upon the voucher record for its entries, this record being in turn the home of the entries which directly interest the other ledgers, and which for convenience sake, we have divided into sales ledgers, accounts payable record and factory ledger. Our sales ledgers in turn being divided territorially into A, B, C and city.

Our sales ledgers contain all accounts with our customers, our accounts payable record with our open creditors, and our factory ledger pertaining to our factory, and also in which all expense items of our factory are analyzed.








## CHART OF ACCOUNTS—BALANCE SHEET

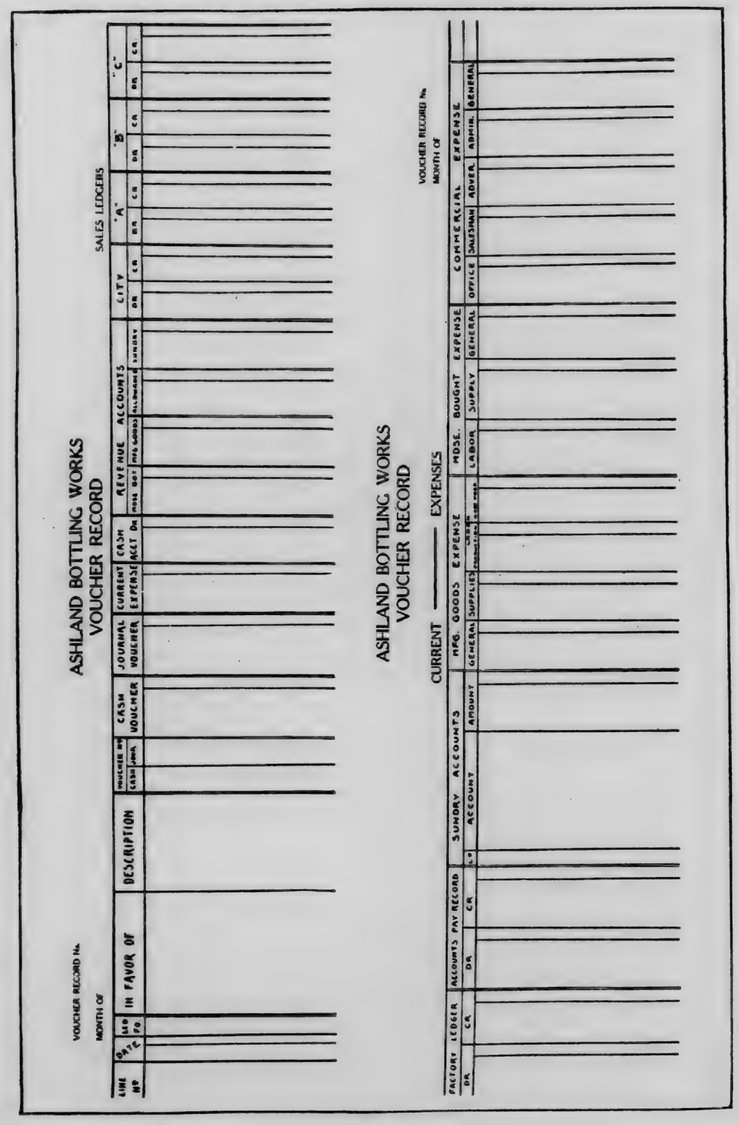
## ASHLAND BOTTLING WORKS

**BALANCE SHEET**

- **ASSETS**
  - Operating
    - Construction
    - Real Estate
    - Bottles and Cases
    - Office Equipment
    - Wagon, Sleigh, Harness and Horse Account
  - Current
    - Cash
    - Personal Accounts Rec.
    - City Ledger Accounts Rec.
    - A Ledger Accounts Rec.
    - B Ledger Accounts Rec.
    - C Ledger Accounts Rec.
- **LIABILITIES**
  - Funded
    - First Mortgage
  - Floating
    - Accounts Payable
    - Personal Accounts Payable
  - Reserves
    - Depreciation and Up-keep
    - Renewal—Bottles and Cases
  - Capital
    - F. B. Investment Account
    - O. B. Investment Account
- **REVENUES**
  - Manufactured Goods
  - Merchandise Bought
  - Allowances to us
  - Sundry Receipts

**PROFIT AND LOSS**

- **CURRENT EXPENSES**
  - MFG. GOODS
    - Labor
      - Productive
      - Non-Productive
    - Supply
      - Supplies
      - In Freight
      - Supply Expense
    - General
      - Light
      - Heat
      - Power
      - Taxes
      - Insurance
      - Miscellaneous, General
      - Up-keep and Depreciation
  - MDSE. BOUGHT
    - Labor
    - Supplies
      - Supplies
      - In Freight
      - Supply Expense
    - General
      - Expense
  - COMM. OR SELL. AND RUNNING
    - Office
      - Salaries
      - Miscellaneous Office Expense
    - Salesmen
      - Salaries
      - Miscellaneous Expense
    - Advertising
    - Administrative
    - General Expense








Our records, as our organization tend to centralize, our general ledger acting in the stellar capacity, guiding our purchases, production and sales.

Taking each up in their turn we can more readily pick out the advantages accruing from our system.

As we must have a product before we can sell, our first attention will be drawn to our purchasing department, where raw material or manufactured goods in its primal state is purchased.

The purchasing agent has charge of all of our purchases, to and including a certain amount. He makes all purchases upon requisitions from the different departments. These requisitions are made out in duplicate, one copy of which is sent to the purchasing agent, the other copy is kept on file in the office where it originated. This authority of purchase is O. K.'d by the department head where the requisition had its source. The purchase is then made upon receipt of quotations as to price. Each purchase is given an order number which gives our stores department authority for O. K. of receipt, price, and approval of goods. The material is now on hand, our stores department having received same. The next turn is to its proper distribution. An accurate record of this distribution is kept, stores being let out only upon what we term a secondary requisition, which is a requisition for a supply or merchandise bought issued by the foreman of different departments in our manufacturing departments or by our shipping clerk.

Supplies are the minor part in the manufacture of our goods, labor being the major. Record of our employes' time is kept from cards issued them each day, time and distribution of labor thereon being put on by the foreman who has charge of the work on which the men are employed. Record of this time is kept by the time-keeper.

This labor and that material gives us our finished product, record of which is kept in conjunction with our stores department.

Our product as well as the merchandise bought is sold in four different territories, and as previously noted we have four distinct divisions of our sales ledgers, each recording the sales and collections therein of the different customers on that route. This division is of material assistance to us, being of economic as well as of comparative value.

Its economic value being in that we can readily locate a customer's account, making postings and statements with a good rate of speed not otherwise attained. We have our customers' accounts divided locally, that is, by town and then also listed alphabetically under that town.

The comparative value being in that we can make valuable comparative statements. Graphic methods are used in order to clearly illustrate the comparison of sales of our different products and of these products in the different territories. Referring to the chart, you can readily determine the comparison of sales, as you have the picture before you not needing

REQUISITION

REQUISITION No.....

ASHLAND BOTTLING WORKS

.....190.....

PURCHASING AGENT:—

PLEASE PURCHASE FOR OUR DEPARTMENT THE FOLLOWING MATERIAL

| QUANTITY | DESCRIPTION | DATE WANTED | FOR USE OF PURCHASING DEPARTMENT |
|---|---|---|---|
| | | | |

APPROVED.....

.....DEPARTMENT

to go into a jumble of figures. However, to make this chart or statement valuable and with as little detail as possible, present conditions as well as prior conditions must be taken into account. Sales of the current month as compared with the average daily sales the same month the year previous.

In connection with the sales ledgers, the manner of entry will no doubt be of interest and in this connection we will explain the method. As a sale is made invoice is rendered and duplicate retained in invoice record, this invoice in turn being posted to the ledger designated thereon. Recapitulations of the sales are made and posted as per invoices each day to the sales book, and at the end of the month this record is vouchered and entered on the voucher record as per its distribution. This gives us the sales to the different individual ledgers. The credits to these ledgers are made up of cash payments and sundry credits, the credits being made out the same as invoices, and go through the same routine as the sales. The cash collections record which has columns for distribution to the different

ASHLAND BOTTLING WORKS

SALES BOOK

.....190.....

| INVOICE NUMBER | CASH | | CITY LEDGER | "A" LEDGER | "B" LEDGER | "C" LEDGER | TOTAL SALES |
|---|---|---|---|---|---|---|---|
| | MFG GOODS | MDSE. BOT | | | | | |
| | | | | | | | |





ledgers is also vouchered at the end of the month, and the collections thereon being distributed as per voucher distribution.

As a necessary adjunct to our sales records, we must as previously stated, keep an accurate record of our bottles and cases, and this is done by means of a card record. Various colored cards representing the different kinds of cases and future contents, as A1 would represent pop bottles, and B2 siphon seltzer and so on. Each case has two cards, both being numbered as the case. Every customer has a folder, and in this folder is placed one of the case cards, which case has been shipped the customer, with the information filled in. The remaining or other card is placed in numerical order in a cabinet which contains only cards of the same kind of case. By referring to the folder one can tell the kind of case and the number of each kind, that a customer has, and what length of time they have been out. This information is placed upon the individual cards as the case is shipped. And on its return, the information necessary to complete the record of the case is taken from the shipping tag, and in the event of the tag being lost or badly mutilated, the record of the case is completed by tracing to the card the number of the case. Thus we can easily find out how many cases of each kind are on hand.

Having followed our raw material from its purchase to its final sale, we will turn back and follow its constituents and their relative factors of expense, which gives us the cost of these goods.

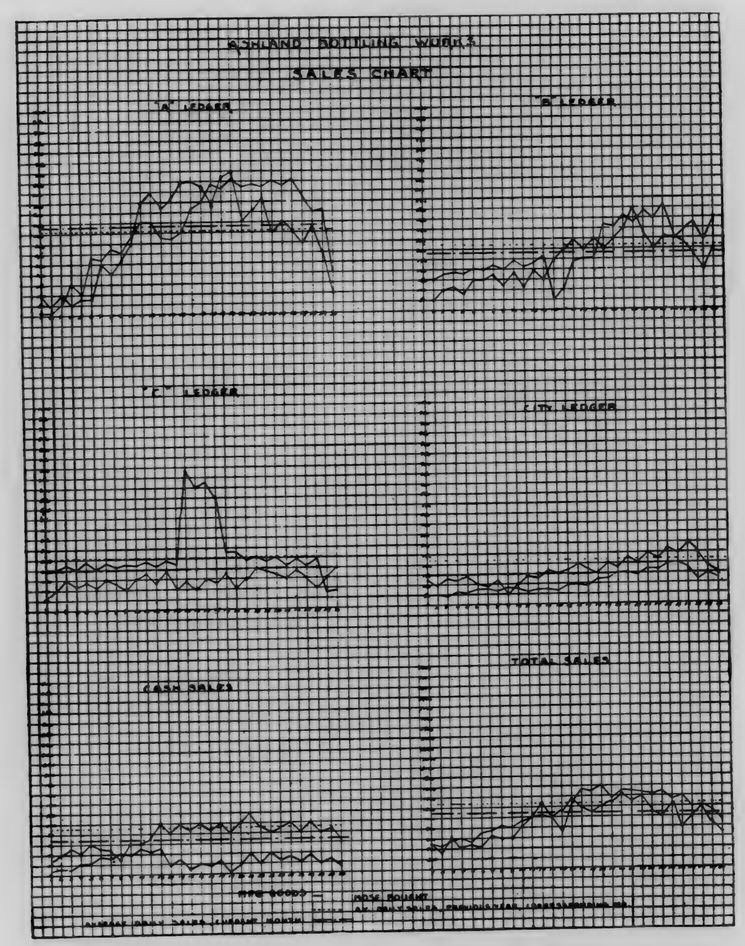
With this purpose in mind, we will revert back to our balance sheet and from it pick out the items directly relating to manufacturing.

This we find divided into labor, supply and general expense, and these in turn re-divided.

Taking up labor, which we have divided into productive and non-productive. The productive being that labor necessary to the manufacture of our goods, whereas, the non-productive covers all miscellaneous labor charges, all of which we have previously divided into numerous divisions as to operation. The recording of this time we have previously outlined. Our next consideration is the supply expense, distribution of which we have also outlined. Our general expense takes in several intangible elements as up-keep and depreciation; these items cannot be accurately determined unless one uses a scale for depreciation allowing certain life to all depreciable property. Our other general expenses are of a tangible nature and are readily figured. This concludes our manufacturing expense or rather our manufactured goods, and as our cost sheet appended, all items are taken into consideration and relatively apportioned.

Now that we also deal in merchandise bought, we also distinguish expenses relative to this department and have divided this expense into labor supply and general, these in turn being re-divided.

In order to market these goods and to keep the business running we have need for a commercial or selling and running expense. This expense




is divided into different items, and as a whole distributed prorata over the sales of merchandise bought and manufactured goods. We now have our costs and can determine our revenue from the sales of our manufactured goods, merchandise bought, allowances and sundry receipts. The next element is our profit or loss as the case may be, and this is found by deducting our expenses from our revenues.

The forms of records used in our business may be easily adapted by





COST SHEET—ASHLAND BOTTLE WORKS.

SALES AND REVENUES.

| | Amount. | Per cent. Current Mo. | Per cent. Previous Mo. |
|---|---|---|---|
| Manufactured Goods | $ | $ | $ |
| Mdse. Bought | $ | $ | $ |
| Allowances to us | $ | $ | $ |
| Sundry Receipts | $ | $ | $ |
| Total Amount | $ | $ | $ |

COMMERCIAL EXPENSE.

| | | | |
|---|---|---|---|
| Office Salaries | $ | $ | $ |
| Miscellaneous Office Expense | $ | $ | $ |
| Salesmen's Salaries | $ | $ | $ |
| Miscellaneous Expense | $ | $ | $ |
| Advertising | $ | $ | $ |
| Administrative | $ | $ | $ |
| General Expense | $ | $ | $ |
| Total Amount | $ | $ | $ |

PRO-RATA OF COMMERCIAL EXPENSE.

| | | | |
|---|---|---|---|
| Manufactured Goods | $ | $ | $ |
| Mdse. Bought | $ | $ | $ |
| Total Amount | $ | $ | $ |

MANUFACTURED GOODS EXPENSE.

| | | | |
|---|---|---|---|
| Labor—Productive | $ | $ | $ |
| Non-Productive | $ | $ | $ |
| Supply—Supplies | $ | $ | $ |
| In Freight | $ | $ | $ |
| Supply Expense | $ | $ | $ |
| General—Light | $ | $ | $ |
| Heat | $ | $ | $ |
| Power | $ | $ | $ |
| Taxes | $ | $ | $ |
| Insurance | $ | $ | $ |
| Upkeep and Depreciation | $ | $ | $ |
| Mis. General | $ | $ | $ |
| Total Amount | $ | $ | $ |
| Per cent of Commercial Expense | $ | $ | $ |
| Total Mfg. Goods Expense | $ | $ | $ |

MDSE. BOUGHT EXPENSE.

| | | | |
|---|---|---|---|
| Labor—All Labor | $ | $ | $ |
| Supply—Supplies | $ | $ | $ |
| In Freight | $ | $ | $ |
| Mis. General Expense | $ | $ | $ |
| General Expense | $ | $ | $ |
| Total Amount | $ | $ | $ |
| Per cent of Commercial Expense | $ | $ | $ |
| Total Mdse. Bought Expense | $ | $ | $ |

TOTAL CURRENT EXPENSES.

| | | | |
|---|---|---|---|
| Commercial Expense | $ | $ | $ |
| Mfg. Goods Expense | $ | $ | $ |
| Mdse. Bought Expense | $ | $ | $ |
| Total Amount | $ | $ | $ |

NET PROFIT.

| | |
|---|---|
| Sales and Revenues | $ |
| Current Expenses | $ |
| Net Profit | $ |

others, our charts may be used in varying cases, and changed to suit individual needs. Our organization may be used as a basis for figuring out others, the divisions may be further extended and divided as the extensiveness of the business demands. And as our system exhibits through our monthly reports and statements, the exact condition of our business, showing whether we are either progressing financially and physically or whether we are falling off, so may others determine the net results of their own.—*(Otto A. Boheim.)*

## (302) BRANCH STORES—MANAGEMENT AND ACCOUNTING.

In providing for an efficient supervision of branch retail stores by a main wholesale store—a system that shall be at once comprehensive, simple and practical—it is necessary to define the precise objects we desire to attain. These we will present—first, in the shape of headings under which we propose to describe our system, and in the way in which they will be treated; and second—in an explanation of the methods to be adopted in order to achieve the desired results.

OBJECTS.—The treatment of purchases and sales so as to secure a perpetual inventory with the smallest amount of trouble and expense.

A daily or weekly report of the trading results of each department of each branch.

Sales Distribution.
Canned Goods

| | Tomatoes | Corn | Peaches | Pears | Apricots | Green Peas | Pine Apple |
|---|---|---|---|---|---|---|---|
| May 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| to | | | | | | | |
| 31 | | | | | | | |

A daily or weekly exhibit of the business transacted, and profit made by each branch.

HEADS UNDER WHICH SYSTEM WILL BE DESCRIBED.—Purchase records. Stores records. Branch debits. Sales records. Branch accounts receivable. Records of cash receipts. Daily and weekly dissection of cash and credit sales. Departmental trading accounts. Branch trading accounts.

At the outset it will be understood that the following accounts will be kept by main office with branch stores:

Branch Merchandise Purchases.

Branch Cash and Credit Sales.

Branch Expense.

Also separate accounts with each department of each branch in regard to which it may be desired to ascertain the net results of trading.

PURCHASING DEPARTMENT.—All merchandise for the branches shall be purchased in the usual way by the main office purchasing department. Orders received at main store or delivered direct to branches shall first be debited to the General Purchase account and credited to accounts payable





The merchandise intended for the branches will then he credited to the General Purchase account and charged to the branches at selling price (list selling prices will be furnished to each branch by the main office).

The branch merchandise purchase accounts shall be ruled with two sets of columns on the debit and credit sides. In the first debit column will be entered cost price and freight of merchandise purchased. In the second column will be entered the selling price at which the merchandise is charged. The reason for this arrangement is that experience has shown it to be an excellent plan for preventing theft of stock. The manager is aware that he will have to render an itemized account of the goods put in his care—he will see that the goods are accounted for by his clerks. Each office will be provided with a cash register. The best, although somewhat expensive, is the one with a drawer for each clerk, numbered or by letter. By this means, each evening the strip can be cut off, the name of the branch manager, number of branch and date attached, and the whole can be forwarded to main office.

Thus, at any rate, an accurate check can be had on all employes, and the nature and amount of every sale is recorded.

Purchase returns are entered in the credit columns.

In order to prevent fraud in duplication of invoices, etc., purchase orders will be made in quadruplicate; one copy to parties from whom purchases are made; one copy for the branch for which ordered (if specially ordered); one copy to the receiving room and one copy for the purchasing department file. No invoice will be O. K.'d for payment unless the receiving clerk's O. K.'d copy of purchase order is attached, and all purchase orders will be numbered consecutively when printed. If specially ordered for delivery to a branch, the branch's O. K.'s copy of purchase order will be attached.

By adopting this plan the trading accounts at selling price will exactly balance, providing the sales record and inventories are correct, or otherwise will call immediate attention to important differences and the departments in which they have occurred. Also, the branch store managers will not know exactly how much profit has been made by the business of which they have charge.

BRANCH STORES AND INVENTORIES.—In this kind of business where there is such a variety of supplies it will be found best to use loose sheets for stores records, and dissection of sales, as per illustration. A boy may be employed to dissect sales each day from cash and charge tickets, the accuracy of the work being easily proved by a recapitulation of the amounts of the tickets. The totals may be carried to the inventory sheets each day, or each week, as considered advisable.

These sheets will be made in duplicate, a copy being forwarded to the main office each day. In this way the main office will carry a perpetual

inventory of all stock on hand at the branches, and will verify it from time to time by taking actual inventory of certain departments, or sections.

The inventory sheets will be sectionalized into departments so that the necessary statistics for these departments will be always available.

BRANCH EXPENSE.—All expenditures made on behalf of the branches will be debited to the branch expense accounts.

BRANCH SALES.—Cash registers will be employed at the branches as above indicated, for cash sales, and probably, also, for charge sales, as these devices are now arranged so as to provide for both records as well as for separate department records.

Both cash and charge tickets will be delivered to the main office after dissection.

BRANCH ACCOUNTS RECEIVABLE.—Provide each branch with a combination loose leaf ledger and sales record, indexed in the usual way. At each opening in the ledger the right-hand page will be the sales record and the left-hand page the ledger account. The sales record is made in duplicate from the salesmen's tickets, the original constituting a statement to be mailed to the customer at the end of each month, and the duplicate the permanent sales record, the total of which is posted monthly to the debit of the customer's account on the left-hand page.

There are other ways of accomplishing the same result but this appears to be a very convenient method.

Daily reports of credit sales are rendered to the main office, as also lists of receipts on account.

The wholesale house will carry in its general ledger controlling accounts with the branches, and at the end of each month will verify the balances of these controlling accounts by listing the balances of the branch accounts receivable ledgers, at which time they can also make a list of accounts overdue for special attention.

The total cash and credit sales should be entered each day in a summary sales book, the grand totals at the end of each month to be credited to the branch cash and credit sales accounts.

CASH RECORDS.—The branches will render to the main office a daily report of receipts from cash sales or charge accounts, accompanied by the total receipts for the day; or, in some cases, these receipts may be deposited in a bank to the credit of the account of the main store.

A fixed sum per day shall be allowed to each branch for the purpose of making change, and for petty expenditures, same to be continuously restored by making up each day the amount expended on the preceding day.

DISTRIBUTION OF EXPENSE.—At the end of each month each branch should be charged with its proportion of administrative, or main office expense, to cover cost of any direct supervision from the main store, or clerical work on branch records and on accounts relating to branches.





These charges are, of course, made by journal entries, debiting branch accounts and crediting main office accounts involved, such as salary, advertising, cost of delivery, etc.

A proper proportion of branch general expense based on departmental turnover shall be distributed over the departments with which separate trading accounts are kept.

TRADING ACCOUNTS, ETC.—We are now ready to prepare our statistical, or comparative statements, which will be drawn up as per the following illustration of one branch and its departments.

BRANCH 1.

DEPARTMENT TRADING ACCOUNT, MAY 31.

| Dr. | | Cr. | |
|---|---|---|---|
| Inventory at Selling Price, 5/1 | $..... | Sales | $..... |
| Purchases at Selling Price, 5/31 | $..... | Inventory at Selling Price, 5/31 | $..... |
| | $..... | | $..... |

DEPARTMENT TRADING ACCOUNT AT COST.

| Dr. | | Cr. | |
|---|---|---|---|
| Inventory, 5/1 | $..... | Sales | $..... |
| Purchases | $..... | Inventory, 5/31 | $..... |
| Direct Expense | $..... | | |
| Distribution Expense | $..... | | |
| Net Profit | $..... | | |
| | $..... | | $..... |

BRANCH 1.

GENERAL TRADING ACCOUNT, MAY 31.

| Dr. | | Cr. | |
|---|---|---|---|
| Total Inventories | $..... | Total Sales | $..... |
| Total Purchases | $..... | Total Inventories, 5/31 | $..... |
| Total Direct Expense | $..... | | |
| Total Distribution Expense | $..... | | |
| Net Profit | $..... | | |
| | $..... | | $..... |

*—(E. Henderson.)*

(303) SUPPLY AND EXPENSE DEPARTMENTS OF BRANCH BANKING.

The question of supply and expense in the maintenance of branch stores and offices is one that has not received much consideration in the past. It seems to have been considered sufficient when the main store or office has included such expenses in a general way and the detail has been lost track of.

Probably until recently the only branches or departments of a business conducted by methods herein described have been the sub-stations of

the post offices in large cities where such branches have long been established.

While this article deals only with banking the argument is adaptable to other businesses as well and in this article the salient points are strongly emphasized.

For only a small number of years the business men of the United States have taken advantage of the handsome opportunities for profits offered by placing and operating stores, under one executive management, in different cities and in the country surrounding that wherein their main office is located; in other words, by distributing their business from several branch offices instead of from one principal place of business. As evidence of the wisdom of this policy is its widespread adoption by conservative business men. One of its most striking examples is that of branch office banking, which, however is long past the experimental stage. It has been carried on for many years by the banks of Scotland, which are by far the most notable exponents of this method of banking.

The Bank of Scotland, organized in 1695, has over 125 branches in successful operation, Paris Bank, Limited, England, has 164 branches; London City and Midland Bank, 338; The Comptoir National D'Escompte de Paris, 165. Canada is also in the fore with over 1,200 branch banks throughout the Dominion, and we can expect to see the American leaders, although far in the rear at present, by the aid of American originality and aggressiveness pushing the Scottish pioneers before many years have lapsed.

It is in such an institution that the ingenuity of the executive officers is taxed to the utmost, for it is here that a perfect system and a most thorough knowledge of detail is necessary to those in charge, because the bank must take advantage of every small opportunity to cut down expenses if it would obtain the best results.

REQUISITION

THE FOLLOWING ARTICLES WILL BE REQUIRED

By ____ November 18 ____ 190 7

5000 Deposit Slips
700 Passbooks Nos 3000 – 3700
1Qr black ink

Signed John Williams
Approved A.E. Towne Mgr. Branch 'H'

FORM 1.

STOCK Savings Vouchers — FORM B-1 — SIZE 3¼ × 6½

DISTRIBUTION B. SD. T-C. T-E. I. G. SAMPLE Page 290

| DATE | FROM | QUANTITY | AT | COST | REMARKS |
|---|---|---|---|---|---|
| 11 11 05 | Bryan & Co. | 10 M | 1.25 | 12.50 | |
| 2 24 06 | M. Pkg. Co | 10 M | 1.10 | 11.00 | |
| 4 10 06 | Bryan & Co. | 20 M | .80 | 16.00 | |
| 1 19 06 | Bryan & Co. | 20 M | .90 | 18.00 | |
| 9 11 06 | Bryan & Co. | 1 M | 1.00 | 3.50 | Opt. Br. C. |
| 4 10 06 | Bryan & Co. | 94 M | .74 | 69.56 | |
| 1 6 06 | Bryan & Co. | 50 M | .74 | 37.00 | |
| 6 14 06 | Bryan & Co. | 50 M | .74 | 37.00 | |
| 2 6 06 | Bryan & Co. | 100 M | .45 | 45.00 | |

FORM 2.

One saving in particular is that maintained in the supply department in a large branch-banking institution. By an economical and practical system of the purchasing and distribution of supplies at the principal office each branch participates in the advantage of wholesale rates, reducing this expense to the minimum. With a company doing a large branch-banking business the supply department assumes immense proportion, and must be carefully looked after.





A description of such a system now in operation in a large trust company is hereinafter described. It really covers a complete accounting for every dollar passed through the expense account each year and the ultimate filing of vouchers with the supporting bills accompanied by the O. K. of the official responsible for expenditures, for the auditors' examination.

PURCHASING THE SUPPLIES.—In the purchasing of supplies it is necessary that but one man do the ordering, so that orders will not be duplicated and similar costly mistakes made.

The order blank used is of the ordinary form, carrying a number, with instructions to the firm from whom goods are ordered to refer to the number in billing. This is essential as it is impossible for the buyer to identify all purchases by the bill. The order blanks are bound in books of one hundred each with yellow duplicates alternating, on which carbon copies are made. The numbers and dates of orders contained in the book are labeled on its back after the entire book has been used up and the books are filed consecutively, so that it is the work of but a minute to locate an order either by number or date.

Supplies are delivered direct into the hands of the stock clerk, and are held for the arrival of the billing to be checked up, and when quality and quantity are found correct, the stock is placed on the shelves, and the bill stamped with the date of receipt and initials of the person who checked the count.

Two samples of all printed forms are pasted into the buyer's scrap book in order of receipt, and marked with date, name of maker, quantity received, rate per thousand and total of bill. This latter procedure is carried out in regard to everything in the line of printed stock, even to taking the last two pages from all blank books. Two samples of each form are thus preserved and the top one so pasted that it can be removed for use as copy when the next order is placed. This plan has the advantage of allowing the buyer to make notation on such preserved copies of any changes or improvements which he may have in mind to make in the next

SAMPLE B-5 pp 298

Savings Vouchers — FORM NO. B-1 — SIZE 3¼ × 6½

DISTRIBUTION B SD T-C T-E I G — BALANCE

TO STOCK — FROM STOCK

| Date | Receipt of | Pkg's | Each | Quantity | Per M | Cost | Date | To | Quantity | Charged | On Hand |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 6 06 | M'f Co. | 50 | 1000 | 50,000 | .75 | 37 50 | 8 10 06 | Br C. | 5000 | 3 75 | 45 M |
| | | | | | | | 8 29 06 | Br T. | 15000 | 11 25 | 30 M |
| | | | | | | | 9 1 06 | Bryan | 2000 | | 28 M |
| | | | | | | | 10 3 06 | Br K. | 8000 | 6 00 | 20 M |
| | | | | | | | 10 15 06 | Bryan | 2000 | | 18 M |
| | | | | | | | 10 16 06 | Br A. | 12,000 | | 6 M |
| 10 30 06 | E. Pkg. Co. | 100 | 1000 | 100,000 | .70 | 70 00 | 11 2 06 | Br D. | 5000 | | 101 M |
| | | | | | | | 12 5 6 | Bryan | 2000 | | 99 M |

FORM 3.

order, and incidentally, make it an easy matter to continually improve forms and blanks to meet the needs of a growing business. Ideas are thus preserved to come to notice at the opportune time to be available. As in actual practice it is noticeable that inspirations usually appear after a new stock has been laid in, the value of this feature is realized. The sample remaining, after one has been used as a copy for a new order, is valuable in that it is a good check on the new stock in regard to quality, workmanship, finish, etc.

The Buyer's Record.—Acting both as an index to the buyer's scrap book and also as a complete buying record of each kind of stock, is the buyer's record card, a facsimile of which is herewith produced.

This card is kept in an alphabetical file in the buyer's desk, and contains the essential data concerning all purchases of any kind of stock. As all entries are O. K.'d by the buyer, he makes those entries on this card while the invoices are in his hands, and as it is the work of only a few seconds to make each entry his time is taken up but very little in keeping these cards correct and up to date, even with a large business.

As will be noted, the card covers the date of purchase, from whom purchased, quantity, price per thousand, etc. It also indicates to him how long previous supplies have lasted, and thereby is a guide as to how much to order.

The most important item in actual practice, however, is the rate charged by various printers and stationers who have furnished the stock, and the advantage of buying in large quantities. It has been found by experience that the reduction in the cost of supplies made possible by this knowledge being kept before the buyer will cover the expenses of the clerks employed in this department.

To locate a sample in the scrap book it is necessary to merely turn to the corresponding record card, note the number of the page of the scrap book on which the sample is located and turn to same.

Showing the data contained on the buyer's record card and also a detailed statement of the disbursement of the stock, balance on hand, form number, etc., is the stock ledger card an example of which is produced herewith. This card, while similar to the buyer's record card, shows in addition by whom the stock was used. It is essentially different also in that it is used exclusively in the supply department, and all entries thereon are made by a clerk of this department. After the stock has been checked with the billing and the samples removed, both the samples and the invoice are temporarily attached to a stock ledger card and given to another clerk to fill in the heading on a billing machine, as the cards are too heavy to be readily used on a standard typewriter.

The card, which is a 5x8, is very simple and scarcely needs any explanation. The name is placed in the upper left hand corner. "Sample" refers





to the book and page number of the scrap book containing the samples. For convenience, each form is given a number, the letter preceding the number denoting the department by which the form is used. The size of the form is placed directly under the form number. The distribution will be spoken of later. The remainder of the form is self-explanatory. A check mark is placed beneath the stock-receipt stamp on the invoice to show that the necessary entry has been made on the stock ledger card, as a check, so that no entries will be overlooked.

The value of this card is far reaching because of the accurate and complete data it contains. It is really the corner-stone of the whole supply system.

Employes wishing to get supplies present requisition blanks similar to the accompanying illustration. These are used by both main and branch office clerks alike, and when turned into the stockroom are spindled, for use in making entries to the stock ledger cards, before referred to, thereby making it unnecessary for the stock clerk to stop to make memoranda of each withdrawal from stock.

Expense Department.—It is expedient to dwell here upon what is termed the distribution of the expense department. The expense is classified according to its kind, to the different divisions, as salary, supplies, rent, etc., as shown on the expense register. The same charge is also made to the department incurring the expense, these consisting of bank, safe deposit, trust corp, etc. It will be seen that the total amount charged to the various divisions of expense will equal the total amount charged to the departments, if the entries are correctly made. The manner of making entries is clearly shown on the illustration of the expense register.

Different columns distribute the charge as to classification of expense and distribution to departments, the total of the columns on each page balancing each other. A supplemental section provides for all expense paid for which we expect to be reimbursed, under the heading of expense returnable, and the final column shows the date and disposition of such payments. For instance, all telephone charges and telegrams, chargeable to individuals in the office, are recorded, and bills rendered to such individuals each month. This covers also any supplies purchased by individuals and other items of the kind, which are usually small, but are so hard to keep track of by ordinary methods of memorandum.

No entry is made on the expense register unless an expense voucher check has been drawn for the same, and entry is then made from this voucher.

The voucher check is a form of heavy paper measuring 7x8 inches. On the lower half of one side is printed the form of an ordinary check, and the upper half is reserved for indorsements. As the voucher is folded lengthwise, the check appears on the front, and the place for indorsements

on the back, resembling an ordinary check in this respect. The inside of it contains data showing the distribution of the charge, as entered on the expense register, and also shows what the check is in payment for. There is also a place for the name of the clerk drawing same as well as for the clerk who approves it. Of course the officer responsible for expenditures signs the check before it is sent out.

All main office bills are checked with the monthly statements and O. K.'d, in addition to the stock clerk, by the officer responsible for expenditures, before voucher check is drawn for same. Bills are filed numerically after being numbered to correspond with voucher check, and when checks have been returned they are turned in to voucher clerk by the book-keepers and used as covers in which to file away the bills they paid. Thus each voucher check is filed in numerical order and an alphabetical index kept of these files, there being a file for each office.

Branch expense vouchers are handled in exactly the same manner as those of the main office. The auditor has before him, therefore, when checking up the expense account, the approval of an officer, the approved bill, the O. K. of the stock clerk responsible for quantities, and stamp to show that goods were received and the cancellation of the paying office.

Vouchers are drawn at main office for bills rendered to branch offices, after latter have been O. K.'d by the branch managers.

Each branch has a separate expenes account and separate set of leaves in the expense register, which is kept at main office, and is of the loose leaf variety, permitting of leaves being put in and taken out at will. Each branch when originally formed is indicated by a letter, and its place in the expense register is so indicated by an ordinary alphabetical index with protruding tabs on which are printed the letters corresponding to the branches.

It has been mentioned before that nothing was entered on the expense register or charged to the expense account that was not supported by a voucher check properly filled out. There are in actual practice many small items of expense, such as express charges, that are paid through the teller's window. To take proper care of these is used a blue slip the size of a check, marked at the top "expense debit." It contains a place for the distribution, memo. of the charge, amount, data, O. K. of an officer and signature of payee. When above has been correctly filled out, it is paid by the paying teller, who holds it as cash. Every three or four days, depending upon the amount, these cash items are given to the voucher clerk, who draws an expense voucher to reimburse the paying teller's cash.

DISTRIBUTION OF THE CHARGE.—The distribution of the charge (for supplies) is shown on the stock ledger card to indicate to the voucher clerk how to charge the different departments for stock used. As it is impracticable to make separate charges for each supply of stock given out for





VOUCHER RECORD — EXPENSE CLASSIFICATION

| Date | Voucher No. | In favor of | Total | Salaries | Rent | Light, Ht. & Pwr. | Supplies | Postage | Express | Sundry | Adv'g Papers | Adv'g Special |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aug. 1 1907 | 13784 | Baker Steam Co. | 225 74 | | | | 225 74 | | | | | |
| | 5 | Electric Light Co. | 17 50 | | | 17 50 | | | | | | |
| | 6 | Traveling Expenses J.H.K | 46 95 | | | | | | | 46 95 | | |
| | 7 | Cash Items | 30 45 | 10 | | | | | 5 45 | 12 50 | | 2 50 |
| | 8 | Salaries Last half July | 4845 | 4845 | | | | | | | | |
| | 13785 | | | | | | | | | | | |
| | 13790 | | | | | | | | | | | |
| | 1 | | | | | | | | | | | |
| | 2 | | | | | | | | | | | |
| | 3 | | | | | | | | | | | |
| | | | 5465 64 | 4855 | | 17 50 | 225 74 | | 5 45 | 59 45 | | 2 50 |

FORM 4 L. H.

DEPARTMENT DISTRIBUTION (EXPENSE RETURNABLE)

| Banking Dept. | Safe Deposit Dept. | Trust Dept.-Corp. | Trust D. Estates | Investment Dept. | Bond Dept. | Auditing Dept. | Branch Office Dept. | Advertising Dept. | General Dept.-Corp. | Total | To be paid by | Amount | ✓ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115 | | 75 74 | | | 35 | | | | | 225 74 | | | |
| | | | | | | | | | 17 50 | 17 50 | | | |
| | | | 46 95 | | | | | | | 46 95 | D.C.R. Traveling R.E. | 46 95 | ✓ |
| 2 | 16 | 3 45 | | 6 | | 4 | | | 5 | 36 45 | | | |
| 2345 | 345 | 1116 | 289 | 175 | 250 | | | 325 | | 4845 | | | |
| 2462 | 355 | 1195 19 | 335 95 | 181 | 285 | 4 | | 325 | 22 50 | 5165 64 | | 46 95 | |

FORM 4 R. H.

main office use the departmental distribution is fixed on the basis of estimated consumption when the stock comes in. Each branch, however, is charged with the actual amount they make requisition for at the cost price, and with each supply sent them is a charge or delivery slip bearing a number and showing the date, quantity and price. A duplicate by carbon is kept of this slip in the storeroom. A delivery slip book is kept for each branch with memo. copy in both date and numerical order, and at the end of each month a bill is rendered to the branch manager, detailing all charges made to him for the month. He checks this up by means of the original charge slips mentioned above, and returns the bill with his O. K. An expense voucher is drawn on his office for this amount, payable to the main office and credited to main office expense account, the credit being made to department expense in the same ratio as the departments were originally charged. This voucher is put through the clearing house, as is customary. This check is charged to the branch's expense account on its own books and is a voucher for the entry in it.

In conclusion, it is wise to say just a word supplementary to what has already been termed expense returnable. For this two separate books are kept. One is a journal permitting entries of date, expense, voucher number,

memo. of the charge, amount, classification of expense and department incurring same, also date bill was rendered and date was paid.

This journal is posted from the vouchers and items are checked with the entries in expense returnable column from expense register. The date bill was paid is posted from the expense returned register, which resembles the expense register, shown before, in regard to size, ruling and printing, with the exceptions that in the expense returned register is a column headed "by whom paid," instead of "to whom paid," and the last column, which is reserved for remarks.

As soon as an item of expense returnable is paid it is entered in the expense returned register, and as before mentioned, the date of payment noted in the journal.

An alphabetical index is kept of the journal to facilitate finding any desired item.—*(R. D. M.)*

### (304) METHODS FOR THE SUPERVISION OF BRANCH HOUSES.

To the average book-keeper in the branch office of a large corporation it may sometimes appear that the general office is crowding him up with an accumulation of reports and detail, for no other purpose than to keep him busy. The local manager, too, unless he has had experience in a large business, is likely to remark on the amount of red tape required. To him it seems that the general management might be reasonably satisfied with the good profits he is regularly turning over to them, and that most of the comparative statements, and other statistics his office is called upon to furnish are to a great extent unnecessary, as well as burdensome.

Possibly these gentlemen fail to realize that the management in the general office is just as anxious to eliminate all unnecessary work as they are. Every extra item of work adds to the running expense of the business, and much labor and thought have been expended on the problem of cutting down the clerical work, both in the branches and the general office, while at the same time supplying the management with all the essential facts connected with the various branches and departments.

The auditing department in the general office is the place where most of the reports are received and colaborated, and on its efficiency will the president and general manager be dependent for a clear statement of affairs.

We will not attempt, in this article, to go into the minutiae of the work of the auditing department, but will endeavor to state, as briefly as possible, what may be taken as the most essential facts to be collected and tabulated, in order to give the management a thorough knowledge of the working of the industrial machine; and how to accomplish this result with the minimum of labor, time and reports. Comparative statements may, of course, be multiplied almost indefinitely. Emergencies may necessitate the getting up of special comparisons, and certain businesses may find themselves benefited by particular statements which would be of little use to others, but there are certain facts that must be laid before the management and directorate before they can gain the necessary information to formulate plans and decide on their policy of carrying on the business.





It must be known what profits and losses are being made from time to time; where the volume of business is increasing and where it is falling off; which branches are paying and which are running at a loss; what is costs to purchase or produce the articles dealt in, and the cost of distributing and marketing them at the different points throughout the territory covered; how large a stock of goods is being carried at the various branches; the amount of cash on hand and in the banks; and, possibly, the condition of customers' accounts.

To effect these objects the principal means will be found in the daily, weekly and monthly reports of the current work carried on at each branch house, and comparative statements of the volume of business for the corresponding period in previous years. These reports will necessarily be compiled from the books and records of the branch houses, and should be accurate statements of the actual transactions.

As a check on the accuracy of the figures turned in by the branches, all large corporations maintain a corps of traveling auditors, whose duty it is to visit the branches at intervals, and check over the work, comparing the books with the reports sent in to the general office. These traveling auditors can frequently aid the management, by including in their official reports, many facts regarding local conditions and the personnel of the office force, which could not be otherwise obtained.

While specialized businesses will require special reports, there are

DAILY CASH BALANCE

_____ 190 _____ BRANCH

CASH BALANCE 1ST OF MONTH
DEBIT FOOTINGS TO DATE
CREDIT FOOTINGS TO DATE
BALANCE

CASH IN BANK
CHECKS
TICKETS
CURRENCY
GOLD
SILVER
CHANGE
TOTAL

LIST CHECKS | LIST TICKETS

SIGNED _____ CASHIER

FORM 1.

Cash Statement for Week Ending _____ 190 7 _____ Branch

| DATE | | ACCOUNT | DESCRIPTION | | DR. | | CR. | |
|---|---|---|---|---|---|---|---|---|
| Oct. | 12 | Balin Bank $214.90 Cash 21.10 | Checks $ 1762.90 Tickets 12.43 | | 2201 | 97 | | |
| | | Receipts for Week | | | 3472 | 83 | | |
| | | | CHARGES FOR WEEK. RECEIPTS ATTACHED | | | | | |
| | | | | VOUCHER | | | | |
| Oct. | 14 | Osgood Mfg. Co. | To Bal. a/c | 1417 | | | 29 | 60 |
| | | General Office | Remittance a/c | 1418 | | | 2500 | 00 |
| | 15 | " Expense | W. U. Telegrams | 1419 | | | 20 | 35 |
| | | Maint. Furniture & Fixtures | Repairs to desk | 1420 | | | 7 | 30 |
| | | General Expense | Postage Stamps | " | | | 10 | 00 |
| | | " " | Stationery | " | | | 3 | 50 |
| | | " " | Subscription to Daily News | " | | | | 60 |
| | | " " | Rubber Stamp | " | | | | 40 |
| | | Maint. Horses & Wagons | Horse shoeing | " | | | 4 | 75 |
| | 16 | Trav. Expense | J. B. Willard Exp. a/c | 1421 | | | 18 | 45 |
| | | Maint. of Buildings | Repairs to chimney | 1422 | | | 10 | 50 |
| | | Claflin Mills & Co. | To Bal. a/c | 1423 | | | 180 | 70 |
| | 17 | Trav. Expense | R.R. Mileage Book for J.B.W. | 1424 | | | 30 | 00 |
| | | Bills Payable | Note of Jones Cameron Wing | 1425 | | | 500 | 00 |
| | | Advertising. | Circulars to the trade | 1426 | | | 19 | 80 |
| | 18 | Marcus & Woods | To Bal. a/c | 1427 | | | 110 | 20 |
| | | James & Co. | " " " | 1428 | | | 39 | 07 |
| | | Peterson & Henson | " " " | 1429 | | | 10 | 25 |
| | 19 | Maint. of Real Estate | Drayage & hauling roadway | 1430 | | | 95 | 50 |
| | | Direct Labor | Workmen's pay-roll | 1431 | | | 425 | 00 |
| | | Indirect " | Office salaries & foreman | " | | | 309 | 00 |
| | | | Bal. in Bank 780.40 | | | | | |
| | | | Cash 110.23 | | | | | |
| | | | Checks 434.10 | | | | | |
| | | | Tickets 10.10 | | | | 1334 | 83 |
| | | | | | 5674 | 80 | 5674 | 80 |

Examined and Approved _____ Resident Manager

FORM 2.

certain reports which will be needed by all firms, and these may be listed as follows:

Cash reports.
Stock reports.
Sales reports.
Trial balance.
Loss and gain statement.
Assets and liabilities.
Inventories.
Earnings and expenses.

The daily cash report (Form 1), is simply a copy of the cashier's daily cash balance. This may be bound in book form, with duplicate pages,





the carbon copy being torn out and forwarded to the general office, the original being retained as a permanent record of the branch office. This will take up no extra time of the cashier, as he will require to balance his cash daily for his own satisfaction as well as that of the management.

A more detailed form of cash report is shown in Form 2. It is intended as a weekly report. The balance as per previous report is first shown, the total cash receipts for the week are entered in one amount, and the expenditures are then entered in detail. If desired, the vouchers for these expenditures may accompany the reports. Where a traveling auditor visits a branch at short intervals, this report may be considered unnecessary, but it has been found useful in checking undue expenditures in distant or unimportant branches which are not visited so frequently. It is a re-script of the cash book and voucher record for the week.

Form 3 is a summary of the stock record for the week. It gives in condensed form the purchases, sales and stock on hand, with the cost and selling prices. The actual inventory is compared with the book inventory and any excess or shrinkage is thus shown. A glance at the volume

Stock Report for Week Ending _____ 190__ _____ Branch

| | On Hand per Inventory | Received Chg. | TOTAL | Sold Trade | Sold Branches | Damaged | TOTAL | On Hand per Books | On Hand per Inventory | Excess | Shrinkage | Cost Laid in | SELLING PRICES City | Country Trade | Country Jobbing | Branches | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Balance Sheet for Month of _____ 190 _____ Branch

| ACCOUNT | TRIAL | | BALANCE | | INVENTORY | | LOSS | | GAIN | | ASSETS & | | LIABILITIES | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Capital % | | | 65000 | 00 | | | | | | | | | 65000 | 00 |
| General Office, | 5000 | 00 | | | | | | | | | 5000 | 00 | | |
| Real Estate | 10000 | 00 | | | | | | | | | 10000 | 00 | | |
| Buildings | 15000 | 00 | | | depreciation | | 350 | 00 | | | 14650 | 00 | | |
| Furniture & Fixtures | 1250 | 00 | | | " | | 12 | 50 | | | 1237 | 50 | | |
| Horses & Wagons | 950 | 00 | | | " | | 31 | 33 | | | 918 | 67 | | |
| Interest | 70 | 00 | | | " | | 70 | 00 | | | | | | |
| Mortgages of Real Estate | 130 | 75 | | | | | 130 | 75 | | | | | | |
| " " Buildings | 14 | 60 | | | | | 14 | 60 | | | | | | |
| " " Furniture Fixtures | 21 | 30 | | | | | 21 | 30 | | | | | | |
| " " Horses & Wagons | 18 | 50 | | | | | 18 | 50 | | | | | | |
| General Expense | 210 | 00 | | | | | 210 | 00 | | | | | | |
| Indirect Labor | 1236 | 25 | | | | | 1236 | 25 | | | | | | |
| Direct Labor | 950 | 00 | | | | | 950 | 00 | | | | | | |
| Trav. Expense | 97 | 00 | | | | | 97 | 00 | | | | | | |
| Advertising | 70 | 00 | | | | | 70 | 00 | | | | | | |
| Mdse | 1265 | 50 | | | 5427 | 30 | 949 | 47 | 4161 | 70 | 5427 | 30 | 949 | 47 |
| Loss & Gain % | | | | | | | | | | | 475 | 00 | | |
| Bills Receivable | 475 | 00 | | | | | | | | | | | 500 | 00 |
| Payable | | | 500 | 00 | | | | | | | 650 | 35 | | |
| Suspense % | 650 | 35 | | | | | | | | | 1276 | 80 | | |
| Cash % | 1276 | 80 | | | | | | | | | | | 4204 | 50 |
| Accounts Payable | | | 4204 | 50 | | | | | | | 18107 | 56 | | |
| Country % s Receivable - see Trial Bal | 18107 | 56 | | | | | | | | | 12910 | 79 | | |
| City | 12910 | 79 | | | | | | | | | | | | |
| | 69704 | 50 | 69704 | 50 | | | 4161 | 70 | 4161 | 70 | 70653 | 97 | 70653 | 97 |

COMPARATIVE STATEMENT OF MONTHLY SALES

| DEPARTMENT | THIS YEAR | | LAST YEAR | | INCREASE | | DECREASE | |
|---|---|---|---|---|---|---|---|---|
| Country Sales | 7396 | 48 | 6197 | 23 | 1199 | 25 | | |
| City Wagon No. 1 | 1197 | 31 | 1104 | 07 | 93 | 24 | | |
| " " No. 2 | 1392 | 87 | 1216 | 78 | 176 | 09 | | |
| " " No. 3 | 1261 | 39 | 1141 | 28 | 120 | 11 | | |
| " " No. 4 | | | | | | | | |
| Whole sale from Store | 6855 | 42 | 917 | 08 | 5938 | 34 | | |
| Retail | 2397 | 96 | 2114 | 73 | 282 | 73 | | |
| Total | | | | | | | | |
| Total | 20448 | 93 | 12691 | 17 | 7757 | 76 | | |
| Branches | 2978 | 55 | 1706 | 05 | 772 | 50 | | |
| Total | 22927 | 48 | 19397 | 22 | 8530 | 26 | | |

Examined and Approved _____ Resident Mgr.

FORM 4.

the monthly pay roll, showing the amount paid for labor, from the manager down to the office boy or porter, which must agree with the amount charged to labor account for the month (Form 5), and a report of such accounts as are delinquent (Form 6).

Corporations which only close their books annually or semi-annually will prefer the simple monthly trial balance, a separate loss and gain statement being sent in at the end of the financial period.





Pay Roll Statement for Month of _____ 190__ _____ Branch

| NAME | POSITION | TIME | RATE | AMOUNT | REMARKS |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Examined and approved _____

Resident Manager

FORM 5.

_____ Branch

Summary of Earnings and Expenses of MERCHANDISE DEPARTMENT as shown by Monthly Balance Sheets for Year Ending _____ 190

EARNINGS

| | May | June | July | August | Sept | Oct | Nov | Dec | Jan | Feb | March | April | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mdse | | | | | | | | | | | | | |

EXPENSES

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Depr. Bldgs | | | | | | | | | | | | | |
| " Furn & F. | | | | | | | | | | | | | |
| " Horses & W | | | | | | | | | | | | | |
| Interest | | | | | | | | | | | | | |
| Mtge of Real Estate | | | | | | | | | | | | | |
| Bldgs | | | | | | | | | | | | | |
| " Furn & F. | | | | | | | | | | | | | |
| " Horses & W | | | | | | | | | | | | | |
| General Expense | | | | | | | | | | | | | |
| Indirect Labor | | | | | | | | | | | | | |
| Direct | | | | | | | | | | | | | |
| Trav. Expense | | | | | | | | | | | | | |
| Advertising | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | |
| Profit | | | | | | | | | | | | | |
| Loss | | | | | | | | | | | | | |

Remarks

Net for Year $

Resident Manager

FORM 7.

These reports are filed as they reach the general office after being stamped with the date and hour they are received. A separate file is kept for each form of report for each branch. A card index is kept for the reports of each branch house, on which is entered the date when each report from that branch is received.

With these reports before us, we gain a good idea of the work being done at the various branches, and it will be seen that, taking them as a basis, many useful comparative statements may be compiled for the direc-

Statement of Delinquent Accounts _____ 190__ _____ Branch

| Name | Address | Later | Three Months Overdue | Two Months Overdue | One Month Overdue | Total | Rating | Cr. | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Examined and Approved _____
Resident Manager

FORM 6.

tors, and any changes or improvements affecting a branch house can be made by them without having to consult the manager of the branch.

Every morning at 10 o'clock a summary of the daily cash reports is laid before the general manager, showing the amount of cash on hand and in banks at each branch.

Every Monday afternoon an analysis of the stock reports is submitted to him, duplicates being made for the benefit of the purchasing and sales departments.

On the 15th of each month the directors have a statement giving the important figures from the various balance sheets. When desired more detailed information can be furnished them by the auditing department at a minute's notice, but unless something unusual appears in the statement they seldom see the original report.

One of the most useful and enlightening reports is the annual summary of earnings and expenses which is made out for each branch (Form 7), showing at a glance the degree of success with which the branch is being conducted, and indicating where economics should be instituted. When this report reaches the auditing department, the percentage of each expense item is figured out, in comparison with the amount of sales for the month, and also a comparison of the profits with the sales. The respective standing of the various branches is thus obtained and a table made up, but numbers beig entered instead of the name of the branches. A copy of this table is mailed to each branch with a note stating which number on the table represents their office. A keen but friendly rivalry is thus maintained, each branch aiming to be number one on the list.

One of the most essential features in regard to these reports is the promptness with which they are submitted to the general office. The delay of one branch in forwarding its reports necessitates an incomplete statement being presented to the general manager and retards the work of the auditing department, so that punctuality is as important as accuracy in rendering them, and the book-keeper of the branch house who can be





depended on in these particulars may expect commendation from the management, and rapid promotion to more responsible duties.

## (309) BRASS FOUNDRY COST RECORDS.

Systematic cost accounting in a brass foundry should have for its object three definite divisions, as follows:

1st. To exercise a controlling interest over the output.

2nd. To tend to produce a maximum output from minimum costs of production.

3rd. To compute the final costs on actual expense incurred.

When the brass foundry of a large concern manufacturing such articles as cash registers, musical instruments, pipe organs, etc., receives an order (Form A) from the order department to make a specified number of castings as per pattern furnished, the first thing to be considered is the time allowed for the completion of the work, second the quantity of castings required and third the amount of labor necessary for turning out the finished product on schedule time.

On the completion of the order and the turning out of the finished

Date 8-1-07

ORDER ON "BRASS FOUNDRY"

Make 7000 castings Mixture #3
Interlocking Spring Clips
Order No 16745 Pattern No. 237
SCHEDULE - 8-6-07

REMARKS Required daily deliveries of not less than 1000 castings. Destination Store 3

DELIVERIES TO STORE ROOM

| Date | Quantity | Weight | Remarks | Date | Quantity | Weight | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

FORM A.

DELIVERIES TO STORE ROOM

| Date | Quantity | Weight | Remarks | Date | Quantity | Weight | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

This order to be returned to the Material Order Dept after posting final deliveries

FORM A (REVERSE).

product as far as the brass foundry is concerned the question arises, "what has been the cost of fulfilling the order as per specifications furnished."

The final cost will be divided among three groups—labor, material and expense. Expense as here stated will be subdivided between labor expense and material expense.

Labor expense is all that expense incurred in the installation and maintenance of a complete tool equipment, in the provision of suitable accommodations for the enactment of the work and also a percentage of the general expense brought forward from administration, draughting, power, rent, tools, depreciation, insurance and taxes.

Material expense is that expense which is incurred in purchasing receiving, inspecting, handling and storing of raw and process material used in the brass foundry. All labor will be distributed and reported between productive and non-productive. All productive labor should be charged directly against the job number assigned. Non-productive labor will be charged to specific expense orders; thus, time of furnace-tenders, sprue cutters, etc. It can be readily seen that expense of this nature cannot

be directly assessed against any definite job and must subsequently be charged as stated.

Productive labor will include all moulders' and coremakers' time. Where large orders are being handled this time should be assessed directly

BRASS FOUNDRY TIME
-DAY-WORK-TICKET-

| | | | |
|---|---|---|---|
| JOB NO | 2346 | EMPLOYEES No | 796 |
| STARTED | 6-2-07 | NAME | W. DEAN |
| FINISHED | 6-15-07 | RATE | 35¢ PER HR. |

Week Ending June 15-07

CLASS OF WORK.....DYE WORK

| SUN | MON | TUES | WED | THUR | FRI | SAT | TOTAL HOURS |
|---|---|---|---|---|---|---|---|
| | 9 | 9 | 9 | 8½ | 8 | 4 | 47½ |

LABOR $16.63
LABOR LOADING

N Rekcif Foreman Date 6/15/07

FORM B.

against the job, but where the work consists of a miscellaneous assortment of small orders, it has been found advisable to have the order department issue a series of numbers to which this time can be charged.

This will show a division as folows:

CASTING RECORD

MIXTURE #12 SOFT BRASS

| INPUT | | | | | | | | | | | OUTPUT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | Brass | Tin | Lead | | Total | Gates | Total Input | Heats | Pots | Date | Remarks | Floor Work | Tub Work | Machine Work | Total Output |
| 120 lb | 30 lb | 5 lb | 10 lb | | 165 | 150 | 315 | 1 | 1 | 8/2 | | - | 300 lb | | 300 lbs |
| 150 | 38 | 7 | 12 | | 207 | 75 | 282 | 2 | 1 | 8/3 | | | 250 | | 250 |
| - | - | - | - | | - | - | - | 1 | | | | | | | |
| - | - | - | - | | - | - | - | 2 | | | | | | | - |

FORM C.

| INPUT | | | | | | | | | | OUTPUT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | Brass | Tin | Lead | | Total | Gates | Total Input | Heats | Pots | Date | Remarks | Floor Work | Tub Work | Machine Work | Total Output |
| | | | | | | | | | | | | | | | |

FORM C (REVERSE).





Bench moulders, machine moulders, floor moulders, die workers and core makers. Thus 1321-R—bench moulders, 1322-R—machine moulders, etc. The advisability of this method of procedure will be readily seen when we take into account the lax system which would result, were each productive laborer working on several jobs at the same time, to divide his time according to his own estimate. The time of the foreman and his assistant

| DEPARTMENT DEBIT | DESTINATION CARD |
|---|---|
| FOR Store #3 Punch Press Dept | FOR Store #3 Punch Press Dept. |
| ORDER NO 16745 | ORDER NO. 16745 |
| REMARKS | REMARKS |
| DESCRIPTION Interlocking Spring Clips | DESCRIPTION Interlocking Spring Clips |
| Spring Clips | Metal #3 |
| Metal #3 | |
| QUANTITY GOOD ✓ | QUANTITY GOOD ✓ / TOTAL DEFECTIVES |
| ENTERED ON RECORD BY R.V.F. | COUNTED BY H.L.V. / INSPECTED BY H.C.F. |
| DATE OF DELIVERY 8/6/07 | DATE OF DELIVERY 8/6/07 |
| FROM Brass Foundry | DEPARTMENT Brass Foundry |

FORM E.

| TRACING RECORD | DEPARTMENT CREDIT |
|---|---|
| FOR Store #3 Punch Press Dept | FOR Store #3 Punch Press Dept. |
| ORDER NO 16745 | ORDER NO 16745 |
| REMARKED - | REMARKS — |
| DESCRIPTION Interlocking | DESCRIPTION Interlocking Spring Clips |
| Spring Clips | Metal #3 |
| Metal #3 | |
| QUANTITY GOOD ✓ | QUANTITY GOOD ✓ / TOTAL DEFECTIVES / ENTERED ON RECORD BY |
| ENTERED ON RECORD BY R.V.F. | COUNTED BY M.L.V. / INSPECTED BY H.C.F. |
| DATE OF DELIVERY 8/6/07 | DATE OF DELIVERY 8/6/07 |
| FROM Brass Foundry | DEPARTMENT Brass Foundry |

FORM E (REVERSE).

is prorated on the basis of productive laborers in each group. By charging the time of labor as herein described and summarizing weekly or monthly according to the amount of work being handled and dividing by the total output for the specified period, a cost per pound casting will be derived for each division.

The time is turned in daily to the cost department on time tickets as shown (Form B) where they are assorted and filed according to the respective order numbers. These time tickets are then summarized weekly or monthly, the various divisions being charged to the extent of the expense incurred.

Owing to the many and varied mixtures made in the brass foundry it has been found advisable to assign a code number and name to each mixture. Thus hard brass No. 10, phosphor bronze No. 33, muntz metal No. 30, etc. The metal used in making up these various mixtures is entered on a record card as shown (Form C) showing the name and number of the mixture, input and output gates used, and number of heats required.

STORE ROOM RECORD OF DELIVERIES

Checked by N.D. Entered on Card by B.L.C.

Order # 16745 From— Brass Foundry

| Date | Amount Received | Date | Amount Received | Date | Amount Received | Date | Amount Received | Date | Amount Received | Date | Amount Received |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/2/07 | 250 | | | | | | | | | | |
| | 250 | | | | | | | | | | |
| | 400 | | | | | | | | | | |
| 8/3 | 200 | | | | | | | | | | |
| | 150 | | | | | | | | | | |
| | 175 | | | | | | | | | | |
| | 150 | | | | | | | | | | |
| | 200 | | | | | | | | | | |
| | 300 | | | | | | | | | | |

FORM F.

The cards are forwarded at periodic intervals to the cost department, where they are priced and costs extended for each mixture. All gates, sprues, heads and scrap used are reported for information only; this being due to the fact that they have been previously charged against the mixture in question, but not being part of the finished product of that heat are cut off and remelted in the next heat. The total weight output thus determined from the cards is then divided into the total labor (taken from the "R" numbers) for the specified period of time, the result being the cost per pound output.

LOADING AND LABOR.—A loading for labor and material must now be added.

Labor loading is derived from the units of expense incurred through labor, based on the expense time turned in daily by the expense employes. This constitutes all that expense as previously enumerated under labor expense.

Material loading is based on that expense incurred in connection with material as defined under material expense.

The result of this series of cost analysis will be as follows:

A destination ticket as shown (Form E) should accompany all deliveries of material from the foundry to the various parts of the shop. When partial deliveries are made to the storeroom on orders in process of completion, the quantity received and the amount delivered to date are posted (Form F) by the storeroom-keeper. The storeroom-keeper will be held directly responsible for the prompt delivery of all shipments to the various departments, the porters reporting directly to him.

When final deliveries have been made the delivery sheet (Form F) should be sent to the order department where by the perpetual inventory system a complete record is kept of material ordered, received, deliveries made, etc.

It will be found advisable to have the storerooms for the receipt and deliveries of material to the foundry, in close proximity thereto; thereby reducing expense incurred by needless travel when otherwise located.

Accurate cost accounting in the brass foundry has long been a cause of constant worriment to shop superintendents, but a prolonged study and practice of the foregoing method has proved a source of satisfaction to the end that profits have steadily increased where heretofore systems used have proved futile in attempts at accurate costs of production.

*—(N. C. Ficker, C. E.)*

### (309*a*) BREWERY ACCOUNTING.

I shall deal with only one phase of the accounting of a modern brewery, namely the trading and profit and loss account, for there is more to be said about "brewery accounting" than can possibly be crowded into one article.





With the science of brewing still in process of development, with many clever men and deep students devoting their lives to working out the problems that beset the practical brewer, we find the books of account of most breweries to be still in the medieval ages. The book-keeper jogs along from week to week, until the end of the fiscal year is reached: then come the annual inventory and the closing of the books.

A modern system of book-keeping is one that will show the cost per unit in each department. This is easy of accomplishment in a brewery, as the unit is always the same—a barrel of beer. It is not necessary to keep a separate record of the various brewings; as far as the practical purposes of book-keeping are concerned, the beer is made in one kettle and stored in one vat.

The brewmaster must surely keep track of the different brewings of beer, from the mashtub to the storage vats, even to the racking-off room, he must test the temperature and the specific gravity of the product at each different stage of the fermentation; he must know just how his formulæ have resulted; he must know, for instance, how the proportion he has used of German and of Pacific coast hops has worked out and how the last lot of malt from Milwaukee shows up. But it is not necessary for the book-keeper to keep any record of these particulars—only the average cost is needed.

It will therefore be seen that most of the complications of "cost accounting" are eliminated. It remains a simple matter to keep the accounts of a brewery in such a manner that the average cost per unit, of each process can be determined. By comparing one month with another and one period of months with the corresponding period in the previous year, extravagance or waste can be detected.

TRADING AND PROFIT AND LOSS ACCOUNTS. In stating the accounts of a brewery in proper form, the following principal factors should be dealt with in the order named:

*1st—Sales.
2nd—Production.
*3rd—Distribution.
4th—Government Tax.
5th—Administration.
6th—Losses.
7th—Interest.
8th—Net Profit.

The first four of these principal factors are divided between the departments of the brewery—beer and ale and porter, the first and third (*) between city trade and country trade. These divisions are again subdivided into their several elementary parts, for each of which there must be a seperate ledger account. In making the original entries the expenses must be segregated and charged to their proper accounts.

DISTRIBUTION BY CHART. To illustrate the division above suggested and the subdivision into ledger accounts, a chart is presented. Each account is numbered. The grouping and order of the accounts follow the production and distribution of the article made (beer) and the development of the business. There are upwards of ninety accounts in the whole series and some of these are capable of duplication in breweries where a country trade is done as well as a city trade.

In opposition to such a plan it may be urged that the multiplication of ledger accounts makes more clerical work for the book-keeper. This is true to a certain extent, but the value of the results afforded by these extra accounts, far outweighs the cost of the added clerical work.

The book-keeper's duty is to record the facts of a business and supply information. It follows that a good book-keeper will be anxious to record all the facts and supply all the information that his books can be made to contain.

The proper distribution of the cost of materials, labor and expenses to suitable ledger accounts, representing the several distinct elements of cost, and the correct grouping of these elements, will lead to a true and therefore valuable record of the business. Statements prepared from books so kept, will be illuminating, intelligible and instructive.

MONTHLY STATEMENTS. The real object of keeping books of account is to provide information—not merely once a year, at the annual closing of the books—but at all times. The end of each month is found to be a convenient time to review the accounts and so monthly statements are called for.

The chief difficulty in providing a monthly statement, in any kind of manufacturing business, is the impracticability of taking a monthly inventory. The so-called "perpetual inventory," which is simply a clerical record of the coming in and going out of goods and the consumption of materials—merely so much more book-keeping—much talked over and written about by the modern system expert, is not needed here. It is seldom worth the labor it entails.

An actual inventory is readily taken every month, without any expense, in a brewery. With this in hand the preparation of a monthly statement of earnings is really a pleasant diversion, not a hard task, for the book-keeper. It is only one step beyond his monthly trial balance.

The monthly statement should not show the transactions for that one month alone, but should show the accumulated result of the business from the first of the fiscal year to the end of the month reported. For example, in making the July statement for a brewery closing its fiscal year on 31st December, the figures should not be for the twenty-five working days of July, but should be for the seven months ending 31st July. It follows that the "August statement" will contain eight months' business, and so on.





The figures on each successive monthly statement will be more dependable, as they will have a broader basis of average to stand upon.

The next step is to make these monthly statements more valuable, statistically, by comparing them with the like period in the previous year. To do this readily the actual figures for the same number of months of the preceding year should be brought onto the same sheet, in parallel column, line for line.

An illustration of such a monthly statement is here provided, covering a period of eleven months (Figs. 1, 2 and 3). In illustrating the working of any system of accounts, the simplest forms are the most illuminating. For this reason I have selected the forms used in a brewery where only lager beer is brewed, and where only city trade is conducted. These forms are actually in use in two large breweries, but the figures are fictitious.

The grouping and order of the ledger accounts follow very closely the previously shown chart; naturally the accounts that represent ale and porter, country trade and bottling department are absent from this illustration.

Incidental to this monthly statement (Figs. No. 1, No. 2 and No. 3) will be seen a monthly report of operations (Fig. No. 4) whereon are shown, each in turn (1) the net selling price; (2) the cost per barrel of production; (3) of distribution; and (4) of administration; also (5) the net profit per barrel.

The value of these statistics lies in comparing the operations of the current period, with the like period in the previous year. This comparison should be scrutinized most carefully by the president and general manager of the company, or by the head of the firm; the reason for each divergence should be determined and such savings or economies put in force, as may be suggested by the figures thus disclosed.

SPECIFICATIONS FOR DISTRIBUTION OF CHARGES. It remains now to state categorically how to distribute the cost of materials, wages and expenses of a brewery to the several ledger accounts suggested. The grouping and order of these specifications follow the chart and the same account numbers are used.

CLOSING THE BOOKS. It will be observed that in closing the books of account for the year, it is designed that the balances of several accounts should be assembled in groups, along the lines shown on the chart. In turn the balance of each group will be transferred to profit and loss account.

To illustrate the method of closing the books, four accounts have been reproduced on pages 480 to 483. The figurs used are taken from the monthly statement, although these figures are only supposed to be for eleven months.

## Trading and Profit and Loss Account

Statement for 11 months 30 November 1906 to 31 October 1907, inclusive

| | 1907 | | 1906 | |
|---|---|---|---|---|
| **Sales of Beer** 81092 Barrels | | | | |
| Gross Sales | $ 5 001 764 | | $ 4 280 742 | 84 |
| Cash Sales | 169 240 | | 160 784 | 85 |
| Together | 5 171 004 | | 4 441 526 | 69 |
| Rebates | 130 808 | | 174 533 | 68 |
| **Total Net Sales** | 5 040 196 | 24 | $ 4 266 992 | 01 |
| Average net price $6.23 per barrel | $ 62 2 78/100 | | $ 59 6 00/100 | |
| **Barrels Brewed** | 79712 | | 68350 | |
| **Brewing** | | | | |
| **Materials Used** | | | | |
| Malt | 6 307 453 | | $ 4 567 726 | |
| Hops | 149 1 104 | | 137 514 32 | |
| Corn | 1 140 641 | | 106 486 41 | |
| Rice | 90 164 | | 47 803 | |
| Sundry Brewery Materials | 22 120 8 | | 23 855 57 | |
| Sundry Brewery Supplies | 4 358 48 | | 6 077 42 | |
| Total Materials | 10 722 009 | 50 | 6 372 411 | |
| Less Sales of Grains | 571 360 2 | | 511 450 | |
| Cost of Materials | | $ 1 014 725 33 | | $ 860 611 21 |
| **Cost of Materials per bbl.** | $ 12 72/100 | | $ 11 78/100 | |
| **Wages** | | | | |
| Brewmaster's Salary | 36 840 | | 63 449 98 | |
| Brewery Wages | 1 641 274 | | 1 461 379 | |
| Engineers and Firemen | 369 516 | | 353 498 | |
| Washhouse and Platform | 272 312 | 3 044 504 | 251 413 | 2 929 690 1 |
| **Cost of Wages per bbl.** | 38 2/10 | | 42 8/10 | |
| **Fuel, Water, &c.** | | | | |
| Fuel Tons used | 1 305 336 | | 1 018 532 | |
| Water | 39 910 | | 34 861 32 | |
| Engine Room Supplies | 3 643 | | 3 016 4 | |
| Brewery Expenses | 111 544 | 1 858 435 | 110 078 | 1 915 386 06 |
| **Cost of Fuel, &c., per bbl.** | 23 3/10 | | 28 1/10 | |
| | | $ 1 504 864 31 | | 1 852 194 08 |
| Average Cost of Materials and Labor in brewing 79.712 barrels equals $ 18 85/100 per barrel | $ 1 66 5/10 | | $ 1 63 7/10 | |
| **Stock on Hand (Adjustment)** | | | | |
| 30 November 1906 = 42367 bbls @ 3.25 | 130 101 09 | | 111 146 25 | |
| 31 October 1907 = 41.367 bbls @ 3.20 | 132 363 50 | 4 138 50 | 106 869 50 | 8 440 75 |
| **Revenue Stamps Used** | | 81 052 00 | | 71 110 00 |
| **Beer Used on the Premises** | | 1 382 83 | | 1 220 13 |
| Carried Forward | | $ 2 370 500 64 | | $ 2 165 228 96 |

FIG. 1





## Trading and Profit and Loss Account (Continued)

Statement for 11 months 30 November 1906 to 31 October 1907.

| | 1907 | | | 1906 | | |
|---|---|---|---|---|---|---|
| Brought Forward | | | $ 2 370 500 64 | | | $ 2 165 228 96 |
| **Delivery Expenses** | | | | | | |
| Feed | 96 74 74 | | | 77 394 3 | | |
| Shoeing | 12 30 10 | | | 16 068 73 | | |
| Stable Expenses | 8 378 9 | | | 8 318 38 | | |
| Stablemens' Wages | 49 068 4 | | | 44 678 2 | | |
| Drivers' Wages | 117 732 0 | | | 103 386 60 | | |
| Repairs to Wagons | 27 59 43 | | | 18 160 31 | | |
| Repairs to Harness | 5 24 34 | | | 6 530 10 | | |
| Freight, Express and Fortage | 12 04 89 | 22 752 43 | | 11 435 1 | 204 150 0 | |
| Cost of Delivery per bbl. | 28 5/10 | | | 28 5/10 | | |
| **Collecting Expenses** | | | | | | |
| Collectors' Salaries | 30 5 9 36 | | | 30 0 3 26 | | |
| Collectors' Expenses | 10 14 1 54 | | | 13 3 9 3 63 | | |
| Office Spending Money | 9 2 3 20 | 23 125 20 | | 6 8 1 00 | 28 3 3 7 2 | |
| Cost of Collecting per bbl. | 29 5/10 | | | 29 5/10 | | |
| **Expenses of Holding the Trade** | | | | | | |
| Donations and Presents | 4 30 1 50 | | | 4 10 7 80 | | |
| Work Done for Customers | 4 0 2 2 36 | | | 4 2 6 3 80 | | |
| Advertising | 4 1 8 4 3 | | | 2 5 4 2 5 | | |
| Miscellaneous Expenses | 1 1 3 7 3 | | | 5 2 0 84 | | |
| Christmas Presents | 4 9 0 8 5 | 1 4 2 6 6 27 | | 2 7 7 2 8 7 | 1 2 4 4 0 2 5 | |
| **Fixtures and Signs** | | | | | | |
| Saloon Fixtures Expense | 2 6 4 8 70 | | | 2 2 8 0 4 0 | | |
| Beer Signs Maintenance | 5 4 9 36 | | | 1 3 6 4 80 | | |
| Electricity for Signs | 1 8 9 0 3 | 4 0 8 8 59 | | 1 8 0 7 4 0 | 5 5 5 2 | 20 |
| **Maintenance of Plant** | | | | | | |
| Mechanics' Wages | 11 32 52 | | | 11 23 02 | | |
| Lumber and Carpentering | | | | | | |
| Repairs to Buildings | 9 2 3 94 | | | 2 4 2 7 96 | | |
| Machinery Repairs | 2 9 5 9 07 | | | 2 3 2 2 94 | | |
| Repairs to Yard | 1 4 8 6 54 | | | 8 4 4 01 | | |
| Repairs to Kegs | 1 7 0 5 33 | | | 6 2 0 97 | | |
| Repairs to Casks and Vats | 1 6 9 3 56 | | | 5 9 0 50 | | |
| Coopers' Wages | 3 4 6 0 88 | 1 3 4 0 1 24 | | 1 8 4 7 96 | 5 1 0 8 | 36 |
| **Depreciation of Plant** | | | | | | |
| Engines and Boilers | 1 2 2 2 83 | | | 1 9 2 9 14 | | |
| Ice Machines | 2 6 2 1 5 | | | 2 7 9 4 80 | | |
| Casks and Vats | 2 6 0 4 99 | | | 2 1 9 0 00 | | |
| Brewing Machinery | 3 8 2 4 63 | 10 3 1 3 10 | | 3 3 9 0 4 6 | 9 4 4 5 | 10 |
| **Depreciation of Delivery Plant** | | 3 2 2 0 72 | | | 9 1 9 5 | 78 |
| Carried Forward | | $ 2 4 0 0 0 6 18 | | | $ 2 3 9 4 8 3 | 32 |

FIG. 2

## Trading and Profit and Loss Account (Continued)

Statement for 11 months 30 November 1906 to 31 October 1907

| | 1907 | | 1906 | |
|---|---|---|---|---|
| Brought Forward | | 3400058 | | 2955805 |
| **Taxes and Licenses** | | | | |
| State, County and City Taxes | 464550 | | 332066 | |
| Licenses | 127950 | | 181475 | |
| Brewers' Association | 196502 | 789002 | 140000 | 813541 |
| **Insurance** | | | | |
| Monthly Provision for Fire Insurance | 208600 | | 327500 | |
| Boiler, Casualty, &c. | 80005 | 288605 | 66053 | 262553 |
| **Management Salaries** | | | | |
| Officers Regular Salaries | 1052495 | | 833350 | |
| Directors Fees | 100000 | 1152495 | 100000 | 933350 |
| **Salaries** | | | | |
| Bookkeepers, Cashiers and Clerks | 510866 | | 419932 | |
| Miscellaneous Wages | 128046 | 638912 | 181000 | 600932 |
| **General Expense** | | | | |
| Printing and Stationery | 30870 | | 13791 | |
| Legal Expenses | 102275 | | 79100 | |
| Table Expenses | 89193 | | 58552 | |
| Postage, Telegraph and Telephone | 81532 | | 76552 | |
| Office Expense | 185036 | | 77544 | |
| Miscellaneous General Expenses | 314046 | | 291770 | |
| Officers Traveling Expenses | 205000 | 1027954 | 196000 | 913309 |
| **Bad Debts and Losses** | | | | |
| Monthly Provision for Bad Debts | 121380 | | 105000 | |
| Sundry Losses | 128000 | 1343380 | 43380 | 1117880 |
| **Rents of Outside Properties** | | | | |
| Rents Collected Credit | 611000 | | 567980 | |
| Maintenance | 355725 | | 247986 | |
| Taxes and Insurance | 98604 | | 134980 | 795946 |
| **Interest and Discount** | | | | |
| Interest Collected Credit | 1300400 | | 224502 | |
| Cash Discounts do. | 109321 | 1517921 | 20729 | 2430371 |
| Interest on Borrowed Money | | 397011 | | 302760 |
| Interest on Bonds | | 500000 | | 500000 |
| Net Profits for eleven months | | 1020569 | | 812596 |
| | | 5054325 | | 4254501 |

FIG 3





## Comparative Report upon Operations

Eleven months 30th November to 31st October

| | This Year | Last Year |
|---|---|---|
| **Sales** | | |
| Barrels of Beer Sold | 81092 | 71110 |
| Average Net Selling Price | $6.22 78/100 per bbl | 5.98 98/100 per bbl |
| **Production** | | |
| Barrels of Beer Brewed | 79712 | 68330 |
| Cost of Brewing: | | |
| Materials | $1.27 3/4 | $1.17 3/4 |
| Wages | .30 3/4 | .42 3/4 |
| Fuel, Water, &c. | .23 3/4 | .22 3/4 |
| Total, | $1.88 3/4 per bbl | $1.83 3/4 per bbl |
| **Distribution** | | |
| Cost of Delivery | .41 7/8 per bbl | .39 3/4 per bbl |
| Cost of Collecting | .26 3/4 per bbl | .28 3/4 per bbl |
| Cost of Holding the Trade | .18 3/4 per bbl | .18 3/4 per bbl |
| **Administration** | | |
| Taxes, Licenses, Insurance | .15 7/8 per bbl | .12 3/4 per bbl |
| Salaries | .22 3/4 per bbl | .21 3/4 per bbl |
| General Expenses | .12 3/4 per bbl | .12 3/4 per bbl |
| **Losses** | | |
| Bad Debts and Losses | .16 7/8 per bbl | .15 3/4 per bbl |
| Maintenance of Plant | .16 3/4 per bbl | .13 3/4 per bbl |
| Depreciation | .16 7/8 per bbl | .17 3/4 per bbl |
| Interest Charges | .12 per bbl | .08 3/4 per bbl |
| Net Profit for eleven months | 102,064.64 | $ 81,216.66 |
| Net Profit per Barrel | $1.25 88/100 per bbl | $1.14 44/100 per bbl |

FIG 4

(30T*b*) SPECIFICATIONS OF THE DISTRIBUTION OF TRADING AND PROFIT AND LOSS ACCOUNTS (SHOWING IN DETAIL HOW EACH ACCOUNT IS HANDLED.)

No. 1—CITY BEER SALES. Credit city beer sales and the monthly total sales of lager beer to customers in the city, posting the number of barrels into the ledger as well as the money. Beer returned to the brewery must be charged back to this account, but allowances to customers for "leakers" or any other causes of complaint, must be charged to city beer allowances. (The object of keeping this account is to determine what the city beer trade has resulted in.) At the end of the year transfer the total amount of city better sales to profit and loss (Account No. 90.)

No. 2—COUNTRY BEER SALES. Credit to country beer sales the total monthly sales of lager beer to country customers, also post into the ledger the number of barrels sold. Beer returned to the brewery by country customers must be charged back to this account, but allowances to customers for "leakers" or on any other causes of complaint, must be charged to country beer allowances. (The object of keeping this account separate is to learn what the country beer trade has resulted in.) At the end of the year transfer the total amount of beer sales to profit and loss (Account No. 90).

No. 3—AGENCY BEER SHIPMENTS. Charge the ledger account of each agency and credit agency beer shipments with each car load or consignment of beer shipped. For the purposes of accounting these goods are treated as sold when they leave the brewery. Subsequent entries, recording the actual sales are made at the agency. Beer remaining unsold at end of period is taken to account as stock on hand. At the end of the year transfer the total of agency beer shipments to credit of profit and loss (Account No. 90).

No. 4—CITY BEER ALLOWANCES. Charge to city beer allowances all rebates and allowances to city beer trade on each month's collections of lager beer; also allowances (often erroneously called "returns") made to customers for "spoiled beer," "leakers" or on other causes of complaint. The postings will be made from the total of the column in the cash book for this account, also on occasions from the journal. At the end of the year transfer the total amount to profit and loss (Account No. 90). (The object of keeping this account separate is to be able to determine the exact net selling price of beer delivered to the city trade.) See city beer sales account.

No. 5—COUNTRY BEER ALLOWANCES. Charge to country beer allowances all rebates and allowances to country trade on each month's collections of lager beer; also allowances made to country customers for "spoiled beer," "leakers" or on other causes of complaint. The postings will be made from the total of the column in the cash book for this account. At the end of the year transfer the total amount to profit and loss (Account No. 90). (The object of keeping this account separate is to be able to





determine the exact net selling price of beer delivered to the country trade.)

No. 6—ALE AND PORTER SALES. City ale and porter sales.

Country ale and porter sales.

Agency ale and porter shipments.

Read paragraphs No. 1, No. 2 and No. 3, substituting the words ale and porter for the word beer.

No. 7—ALE AND PORTER ALLOWANCES. City ale and porter allowances.

Country ale and porter allowances.

Read paragraphs No. 4 and No. 5, substituting the words ale and porter for the words lager beer.

No. 8—MALT ACCOUNT. Charge to this account all invoices for malt purchased, (posting from the journal) also charge freight, hauling from rail, (if any); cost of hauling, storing, etc., (posting from the cash book).

Credit to this account cash received with respect to cash sales of malt, and of screenings, etc.

At the end of each month credit this account and charge ale and porter brewing (Account No. 16) with the cost (at a price sufficient to include freight and hauling) of malt used in making ale and porter.

At the close of the year, credit the stock of malt on hand at the then market price (if not higher than the cost price) adding freight and hauling, then transfer the balance of the account to beer brewing (Account No. 26).

No. 9—HOPS ACCOUNT. Charge to this account invoices for hops received at the brewery (posting from the journal); also all amounts paid for freight and hauling hops, (posting direct from the cash book). In large breweries it will be advisable to have separate accounts for German hops, Pacific coast hops, etc., on account of the great difference in the value.

At the end of each month credit this account and charge ale and porter brewing (Account No. 16) with the cost (at a price sufficient to include freight and hauling) of hops used in making ale and porter.

At the close of the year credit the stock of hops on hand at the then maket price (if not higher than the cost price) adding freight and hauling then transfer the balance of the account to beer brewing (Account No. 26).

No. 10—CORN ACCOUNT.* Charge to this account all invoices for corn, grits, frumentum or other substitute for malt, received at the brewery (posting from the journal) also all amounts paid for freight and hauling grits, etc., (posting from the cash book).

At the close of the year credit this account with the stock of corn, grits, etc., on hand, then transfer the balance of the account to beer brewing (Account No. 26).

No. 11—RICE ACCOUNT.* Charge to this account all invoices for rice received at the brewery (posting from the journal) also all amounts paid for freight and hauling rice (posting from the cash book).

At the close of the year credit the stock of rice on hand, at the then market price (if not higher than cost) and then transfer the balance of the account to beer brewing (Account No. 29).

No. 12—SUGAR ACCOUNT.* Charge to this account all invoices for sugar received at the brewery (posting from the journal) also all amounts paid for freight and hauling (posting from the cash book).

At the close of the year credit the stock of sugar on hand, at the then market price (if not higher than cost) and then transfer the balance of the account to beer brewing (Account No. 26).

No. 13—SUNDRY BREWING MATERIALS (BEER). This account should be charged with all invoices for materials used in brewing beer, for which no account exists elsewhere, such as isinglass, beer color and any chemical compounds. (Freight and charges, if any, on such materials, should be charged to this account.) Sundry brewing materials used for ale and porter brewing will be charged direct to Account No. 16.

Bring down the value of stock of sundry materials, on hand, as per inventory and carry the balance to beer brewing account (Account No. 26).

No. 14—BREWERY SUPPLIES. Charge to this account all invoices for sundry supplies used in the brewery proper, for which no account exists elsewhere, such as ammonia (for the refrigerating machine), pitch, candles, brooms, etc. Do not charge engine room supplies here (see Account No. 81) nor materials or supplies for repairs or maintenance (see Account No. 27 or No. 29).

At the end of the year bring down the value of stock of supplies on hand and transfer the balance to beer brewing (Account No. 26), and to ale and porter brewing (Account No. 16) proportionately upon the number of barrels of each brewed.

No. 15—SALES OF GRAIN. Credit to this account all money received for the sales of grains, (posting direct from the cash book), if paid for at the time, or from journal if an account is kept with the party buying grains.

At the end of the year transfer the amount received to the credit of beer brewing (Account No. 26). In a brewery where ale and porter are also brewed a proportion of the credit for sales of grains should be given to ale and porter brewing (Account No. 16) unless the arrangement of the brewery permits the handling of the grains separately.

No. 16—"ALE AND PORTER BREWING ACCOUNT." This account is designed to show the cost of brewing the company's total output of ale, porter and stout for the fiscal year. The account may be subdivided, so as to have a separate account for each, but this seldom becomes advisable, except in breweries making a specialty of brewing ales, porter and stout.

The account is built up by monthly charges for the cost of materials used as told in the individual material accounts, also for proportion of wages (see Accounts No. 17, No. 18, No. 19 and No. 20) also for fuel, water, supplies and expenses (see Accounts No. 21, No. 22, No. 23, and





No. 24). The cost of sundry brewing materials, specially purchased for use in brewing ale, porter and stout will be charged direct to this account.

When all the postings have been made to ale and porter brewing, the total debit balance, divided by the number of barrels brewed, will show the cost of materials and labor per barrel. In plants where ale and porter are brewed in a separate building or department from the beer brewery, this account will give place to a series of material and labor accounts specially kept for ale and porter brewing.

The balance of ale and porter brewing account when the books are closed for the year must be transferred to profit and loss (Account No. 90).

No. 17—BREWMASTER'S SALARY. It is desirable to have a separate account for the brewmaster's salary, which will include also wages of assistant brewmaster.

At the end of the year divide the total charge between beer brewing (Account No. 26) and ale and porter brewing (Account No. 16) in proportion to the number of barrels of each brewed during the year.

No. 18—BREWERY WAGES. Charge to this account wages paid to men engaged in making and tending beer, kettlemen, cellarmen and others (posting weekly amounts direct from entry for pay roll entry in the cash book). This does not include men employed in the washhouse, racking-room or platform.

Where the breweries for beer and for ale and porter are separate, it will be easy to keep the wages distinct and in such cases there will be separate accounts.

At the end of the year divide the total between beer brewing (Account No. 26) and ale and porter brewing (Account No. 16) in proportion to the number of barrels of each brewed.

No. 19—ENGINEERS AND FIREMEN. Charge to this account wages paid to engineers, firemen and others in the engine room (posting weekly amounts direct from the pay roll entry in the cash book).

At the end of the fiscal year divide the total amount between beer brewing (Account No. 26) and ale and porter brewing (Account No. 16) respectively, in proportion to the number of barrels of each brewed.

No. 20—WASHHOUSE AND PLATFORM WAGES. Charge to this account all wages paid to men employed in washing kegs, racking off, loading cars, helping drivers to load wagons and other general work (posting weekly amounts direct from the pay roll entry to the cash book).

At the end of the year divide the total between beer brewing (Account No. 26), and ale and porter brewing (Account No. 16) in proportion to the number of barrels sold, (that means delivered).

No. 21—FUEL ACCOUNT. Charge to this account all invoices for fuel coal received at the brewery (posting from the journal), also all freight on same, hauling from rail and labor unloading if outside labor is em-

ployed, (posting direct from cash book). If any blacksmith coal is used it must be charged to maintenance account.

At the end of the year bring down as a balance the value (at cost plus freight and hauling) of coal on hand, and then divide the balance of the account between beer brewing (Account No. 26) and ale and porter brewing (Account No. 16), in proportion to the number of barrels of each brewed; unless a specific basis is obtainable.

No. 22—WATER ACCOUNT. Charge to this account water rates paid (posting direct from the cash book). At the end of the year, care should be taken to include in this account the water rates accrued but not paid. When the true total for the year has been found, divide the amount between beer brewing (Account No. 26) and ale and porter brewing (Account No. 16), in proportion to the number of barrels of each brewed, unless a specific division is obtainable.

No. 23—ENGINE ROOM SUPPLIES. Charge to this account all amounts paid for oil, waste, boiler compound or other supplies purchased for use in the engine room or the boiler house. At the end of the year bring down as a balance the value of stock of these supplies on hand. Do not charge to this account any supplies used for repairs to engines, boilers, etc., (for which see Account No. 29). The balance of the account should then be divided between beer brewing (Account No. 26) and ale and porter brewing (Account No. 16) in proportion to the number of barrels of each brewed.

No. 24—BREWING EXPENSES. Charge to this account all expenses incurred in connection with brewing, such as annual fee to Dr. Wyatt for his advice in brewing matters, traveling expenses of the brewmaster on investigating trips, examinations of yeast and of beer in process of brewing; also miscellaneous expenses incurred in connection with the product of malt liquors.

The total brewing expenses during the year must be divided between beer brewing (Account No. 26) and ale and porter brewing (Account No. 16) in proportion to the number of barrels of each brewed.

No. 25—BEER CONSUMED ON THE PREMISES. It is desirable to conduct a ledger account for "beer consumed on the premises," (called in German breweries "Steinirwirth") in order to determine how much this expense comes to in the course of the year. The beer should be charged at the inventory price, generally $3 a barrel.

No. 26—BEER BREWING ACCOUNT. This account is designed to show the cost of brewing the company's total output of beer for the fiscal year. The balance of the following account is transferred to the credit of beer brewing account when the books are being closed for the year, to-wit,—sales of grains (Account No. 15).

The balances of the following accounts are transferred to the debit of beer brewing account when the books are being closed for the year,





to wit,—malt, hops, corn, rice, sugar, sundry brewing materials, brewery supplies, fuel, brewmaster's salary, brewery wages, engineers and firemen, brewing expenses, water, washhouse and platform wages, engine room supplies.

The balance of beer brewing when all entries are made and posted and the books are closed for the year must be transferred to profit and loss (Account No. 90).

a/c #26 Beer Brewing A/c

| 1907 | | | | | | | | 1907 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oct | 31 | To Malt | #8 | 65 | 07 | 53 | | Oct. 31 | By Sales of Grains | #15 | | 57 | 36 | 05 | |
| - | | " Hops | #9 | 14 | 91 | 08 | | - | " Balance transferred | | | | | | |
| - | | " Corn | #10 | 11 | 06 | 14 | | | to Profit & Loss A/c | | | 100 | 06 | 01 | |
| - | | " Rice | #11 | 9 | 01 | 14 | | | 79.719 Barrels Brewed | | | | | | |
| - | | " Sun. Brew. Malt | #13 | 2 | 21 | 57 | | | @ $1.25½ per bbl. | | | | | | |
| - | | " Brewery Supplies | #14 | 4 | 58 | 42 | | | | | | | | | |
| - | | " Brewmaster | #17 | 5 | 62 | 50 | | | | | | | | | |
| - | | " Brewery Wages | #18 | 16 | 41 | 72 | | | | | | | | | |
| - | | " Engineers, Firemen | #19 | 5 | 68 | 16 | | | | | | | | | |
| - | | " Washhouse & Platform | #20 | 2 | 72 | 12 | | | | | | | | | |
| - | | " Fuel | #21 | 13 | 05 | 38 | | | | | | | | | |
| - | | " Water | #22 | 3 | 99 | 86 | | | | | | | | | |
| - | | " Engine Room Supplies | #23 | | 36 | 31 | | | | | | | | | |
| - | | " Brewing Expenses | #24 | 1 | 51 | 40 | | | | | | | | | |
| | | | | $156 | 222 | 36 | | | | | | $156 | 222 | 36 | |

Beer brewing account must remain closed during the progress of the year's business; it is to be used merely to group together and record the totals of all contributing accounts in one ledger account, for convenience of future reference.

When all the postings have been made to beer brewing account the total debit balance, divided by the total number of barrels brewed, will show the average cost of materials and labor per barrel of beer brewed.

No. 27—MAINTENANCE ACCOUNT. The object of this account is to group together the several items of repairs in order to show in one account the cost of maintaining the brewery property. The balances of the following accounts are transferred to the debit of maintenance account when the books are closed for the year,—repairs to buildings, machinery, kegs, casks and vats, yard, coopers' wages and mechanics' wages. (Repairs to outside properties or to saloon fixtures do not belong here.)

a/c #24 Maintenance A/c

| 1907 | | | | | | 1907 | | | |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 31 | To Repairs to Buildings | #28 | 923 | 94 | | Oct. 31 | By Balance transferred to profit & loss A/c | | 13401 24 |
| " " | " Machinery Repairs | #29 | 2959 | 07 | | | | | |
| " " | " Repairs to Yards | #30 | 1486 | 54 | | | | | |
| " " | " Pipe | #31 | 1705 | 33 | | | | | |
| " " | " [illegible] | #32 | 1693 | 56 | | | | | |
| " " | " Mechanics' Wages | #33 | 1152 | 62 | | | | | |
| " " | " Coopers' Wages | #34 | 3480 | 28 | | | | | |
| | | | $ 13401 | 24 | | | | $ 13401 | 24 |

At the end of the year transfer the balance of maintenance account to profit and loss (Account No. 90).

No. 28—Repairs to Buildings. To this account should be charged the cost of all repairs to the brewery buildings (but not to outside properties), should include the cost of bricks, sand, cement, lumber, paints, lime, putty, glass, tin (for roof), and other building materials used in the maintenance of the brewery property; also wages paid carpenters, masons, bricklayers, plumbers, plasterers, painters, tinsmiths and other mechanics while engaged in repairing buildings, sheds, platforms and the like; provided a "pay roll distribution" is procurable. Otherwise these wages may be charged to mechanics' wages (Account No. 33). At the end of the year transfer the total amount to maintenance (Account No. 27).

No. 29—Machinery Repairs. Charge to this account the cost of all repairs to machinery, brewing utensils and equipment, also to engines, boilers and ice machines; also all steam fittings, water fittings, machinists' supplies and other materials purchased for use in repairing the engines, ice plant or machinery; also fittings, valves and other hardware attached to and made part of the various machines and brewing apparatus; also wages of machinists, boilermakers, steamfitters, and other mechanics while employed upon this work if a "pay roll distribution" is procurable. Examples—Cost of phosphor bronze castings for pumps, babbitt metal for bearings, steel for hop hooks, rubber floats for filter, rubber wire cloth for filters, lampwick for packing.

At the end of the year transfer the balance to maintenance (Account No. 27).

No. 30—Repairs to Yards. Charge to this account all repairs to the yard, walls or fences (not buildings); stone, brick, sand or cement used for repaving yards, also repairs to railroad tracks, renewals of rails, ties,





or track fastenings, also pavers', masons' or carpenters' wages while engaged in the above work.

At the end of the year transfer the balance to maintenance (Account No. 27).

No. 31—Repairs to Kegs. To this account charge all money paid for repairing kegs, cutting them to smaller sizes, etc., as also materials used for repairing kegs, such as bushes, shooks, staves, hoops and coopers' supplies, coopers' tools, repairing coopers' tools, except where purchased for repairing casks and vats; also wages of coopers while repairing kegs and cutting smaller, provided a distribution of the pay roll is procurable; otherwise charge wages to coopers' wages (Account No. 34).

Close the balance of this account at the end of the year to maintenance (Account No. 27).

No. 32—Repairs to Casks and Vats. Charge to this account all money paid for repairing and renovating chip casks, beer vats, fermenting vats and other stationary brewery cooperage; also coopers' or other mechanics' wages while employed on this work, provided a distribution of the pay roll is procurable, otherwise charge wages to coopers' wages (Account No. 34); also all materials used for this purpose, such as hoops and staves for above, hard shell enamel for wood, tools purchased for coopers, repairing storage casks, ropes and tackle purchased for hauling out storage casks.

At the end of the year transfer the balance of the account to maintenance (Account No. 27).

No. 33—Mechanics' Wages. Where it is possible to keep a record of what work the mechanics are doing so that a proper distribution of the pay roll may be made, their wages should be charged specifically to repairs to buildings, repairs to machinery or other maintenance accounts (as described in No. 28, No. 29 and No. 30). Every effort should be made to secure such a pay roll distribution. Where such a record cannot be kept, all wages paid to carpenters, painters, plumbers, steamfitters and mechanics other than coopers, should be charged to mechanics' wages. At the end of the year transfer the total amount paid to maintenance (Account No. 27).

No. 34—Coopers' Wages. Where it is possible to keep a record of the work the coopers are doing, their wages should be charged, specifically, to repairs to casks and vats or to repairs to kegs, according to the work they do, (as described in No. 31 and No. 32). Where no such record can be kept, charge all coopers' wages to this account. At the end of the year transfer the balance to maintenance (Account No. 27).

No. 35—Depreciation of Plant. Depreciation of plant and machinery may be either written off the asset accounts, at the end of each year, and the amount charged to depreciation account, or it may be carried to the credit of depreciation reserve account.

The object of this account is to group together the several items of depreciation on buildings, machinery, casks and vats, etc., in one account. After so doing the total amount will be transferred to profit and loss (Account No. 90) at the end of the year.

No. 36—INVENTORY ADJUSTMENT. It becomes necessary to make an adjustment in respect of the varying quantity of beer and of ale and porter, in the storage cellars. Profit and loss (Account No. 90) is charged with the beer on hand (in the cellars), at the beginning of the period and is credited with that on hand at the end of the period. The same price is used for both factors, and should be as nearly as possible the actual cost of production, which should include maintenance and depreciation of plant and a fair share of administration expenses.

This adjustment of inventory has its logical place on this chart after the cost of production.

No. 37—TEAM DELIVERY ACCOUNT. The object of this account is to group together the various charges entering into the cost of delivering beer by the company's teams; these are,—feed, stablemen's wages, drivers' wages, stable expenses, shoeing, repairs to wagons and repairs to harness.

a/c #37 Team Delivery A/c

| 1907 | | | | | | | 1907 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oct 31 | To Feed A/c | #38 | 9 | 67 | 74 | | Oct 31 | By Balance transfer d to profit & loss A/c | | 33 | 792 | 43 |
| " " | " Shoeing | #39 | 2 | 230 | 10 | | | | | | | |
| " " | " Stable Expenses | #40 | | 638 | 89 | | | | | | | |
| " " | " Wages | #41 | 4 | 906 | 44 | | | | | | | |
| " " | " Drivers Wages | #42 | 11 | 773 | 20 | | | | | | | |
| " " | " Repairs to Wagons | #43 | 2 | 759 | 43 | | | | | | | |
| " " | " Harness | #44 | | 52 | 45 | | | | | | | |
| " | Freight | #45 | 1 | 284 | 89 | | | | | | | |
| | | | $ 33 | 792 | 43 | | | | $ 33 | 792 | 43 | |

The total amount divided by the number of barrels delivered by the company's teams will show the cost per barrel for delivering.

At the end of the year transfer the total amount expended to profit and loss (Account No. 90).

No. 38—FEED ACCOUNT. Charge to this account all horse feed, (hay, corn, oats, bran and similar), also straw used for bedding. (It is not necessary to carry a separate account for straw or bedding.)

At the end of the year bring down as a balance the value of hay, oats





and other feed on hand and transfer balance of the account to team delivery (Account No. 37).

No. 39—SHOEING ACCOUNT. Charge this account with the cost of all horse-shoeing, including incidental shoeing paid for by the drivers. At the end of the year transfer the total to team delivery (Account No. 37).

No. 40—STABLE EXPENSES. All stable supplies and expenses are chargeable to this account, such as brooms, buckets, brushes, condiments, medicines, veterinary surgeon's fees, bandages and all supplies for use in the stable other than feed. Also rent of the stable if the company does not own the building.

At the end of the year transfer to team delivery (Account No. 37).

No. 41—STABLE WAGES. Charge to this account all hostlers', grooms' and stablemen's wages, also the wages of the stable boss.

At the end of the year transfer the total to team delivery (Account No. 37).

No. 42—DRIVERS' WAGES ACCOUNT. Charge to this account all wagon drivers' wages, but the hostlers' and stablemen's wages and the salary of stable boss must be charged to stable wages account. The wages of bottled beer wagon drivers will be charged to the bottling department.

At the end of the year transfer total to team delivery (Account No. 37).

No. 43—REPAIRS TO WAGONS. All wagon repairs are chargeable to this account. The materials will include: wheels, springs, shafts, poles, varnishes, lettering, except where absolutely new wagons are purchased, whiffle trees, wagon seats and other gear; all carriage and wagon builders' bills; also wages of wheelwright, if any be employed by the company.

At the end of the year transfer total to team delivery (Account No. 37).

No. 44—REPAIRS TO HARNESS. All harness repairs are chargeable to this account. The materials will include: horse collars and harness to replace old, leather for harness repairs, mountings for harness repairs, and all supplies for harness repairing; also all harness makers' bills, except where actual new harness is purchased; also wages of harness makers, if any are employed by the brewery.

At the end of the year transfer the balance of the account to team delivery (Account No. 37).

No. 45—COUNTRY DELIVERY (OR "SHIPPING.") The balances of the following accounts are transferred to debit of country delivering account, when the books are being closed for the year, to-wit,—freight on beer, freight on empties.

In a brewery where the beer has to be hauled to the railway depot by the company's teams, a charge should be made to country delivery account and the amount credited to team delivery account. It will generally be enough to do this annually. The amount should be computed on the

total number of barrels of beer sold to out-of-town customers, and the rate should be one-half the average cost of team delivery (per barrel), it being computed that one team and driver could take twenty barrels of beer to the depot and load them into a car in less time than he could deliver half that number, in two or three halves at each saloon. The balance of country delivery account, divided by the number of barrels of beer sold to country customers in the year, will give the average cost per barrel of out-of-town delivery for the year.

Freight on beer shipped to agencies and on empty packages returned from agencies must be charged to agency expense and not to country delivery (or shipping).

At the end of the year transfer the balance to profit and loss (Account No. 90).

No. 46—FREIGHT ON BEER. Charge to this account freight on beer to country customers, not served by the company's teams, but not freight on beer shipped to agencies, which must stand their own freight charges.

At the end of the year transfer the balance to shipping (Account No. 45).

No. 47—FREIGHT ON EMPTIES. Charge to this account freight paid on beer kegs returned from country customers, not served by the company's own teams, but not freight on empty packages from agencies.

At the end of the year transfer the balance to shipping (Account No. 45).

No. 48—COLLECTING ACCOUNT. The balances of the following accounts are transferred to the debit of collecting account, at the end of the year,—collectors' salaries, collectors' spending money, "office spending money." This account remains closed during the year. Its only object is to group

a/c 48 Collecting A/c.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1907 | | | | | | 1907 | | | |
| Oct. 31 | To Collectors' Salaries | 49 | 7 | 059 | 96 | Oct. 31 | By Balance transferred to Profit Loss a/c | | 23 125 30 |
| " " | " Collectors' Spending Money | 50 | 15 | 143 | 50 | | | | |
| " " | " Office Spending Money | 51 | | 923 | 80 | | | | |
| | | | $ 23 | 125 | 30 | | | $ 23 | 125 30 |

together the several accounts above mentioned and to show how much per barrel the total expense of collection have amounted to.

At the end of the year transfer in one sum to the debit of profit and loss (Account No. 90).

No. 49—COLLECTORS' SALARIES. Charge to this account only the wages





paid to collectors; do not charge traveling expenses. If any officer of the company acts as collector, his salary or a portion of it should be charged to this account.

At the end of the year transfer the total to collecting (Account No. 48).

No. 50—COLLECTORS' SPENDING MONEY.* Charge here all money expended by collectors over the bars of customers, when making collections or when calling on the trade. Do not charge to this account any donations, presents to customers, presents to bartenders or the like, for which see donations (Account No. 54).

At the end of the year transfer the balance to collecting (Account No. 48).

No. 51—OFFICE SPENDING MONEY.* Charge here all money expended by cashier, office employes or others than collectors, or money given to customers who pay their bills at the company's office; also money similarly spent by any officer or member of the firm.

At the end of the year transfer balance to collecting (Account No. 48).

No. 52—AGENCY EXPENSES. There should be one account for the expenses of each agency; it will not be found necessary to subdivide the expenses in a medium sized brewery, because all the expenses really belong to country delivery, so far as the main plant is concerned. Allowances and returns must be charged to agency allowances.

In the agency expense accounts the charges will be for freight, ice, rent, feed, telephoning, lighting, agent's salary, drivers' wages, collecting expenses, agent's traveling expenses. At the end of the year this account should be charged with depreciation on agency equipment (horses, wagons, ice-boxes and furniture).

*These accounts may be subdivided into city and country where a shipping trade is done.

At the end of the year the amounts to the debit of each agency expense account will be divided by the number of barrels that particular agency has sold; the figures resulting will show the cost per barrel of disposing of beer through each agency.

When closing the books transfer the balance to profit and loss (Account No. 90).

No. 53—EXPENSES OF HOLDING THE TRADE ACCOUNT. Charge to this account any miscellaneous expenses of holding the beer trade which are not provided for, specifically, in other accounts. At the end of the year transfer to this account the balances of the following accounts: Donations and presents, work done for customers, advertising and Christmas presents.

In closing the books, at the end of the year, transfer the balance in one sum to profit and loss (Account No. 90).

No. 54—DONATIONS AND PRESENTS. Charge to this account donations, presents to customers, presents to bartenders and all miscellaneous ex-

a/c #53 Expenses of Holding Trade A/c

| 1907 | | | | | | 1907 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Oct. 31 | To Donations & Presents #54 | | M | 301 | 50 | Oct. 31 | By Balance transferred | | | | |
| " " | " Work done for Customers #55 | | M | 052 | 36 | | to Profit & Loss A/c | | 1M | 966 | 99 |
| " " | " Advertising #56 | | | M1M | 13 | | | | | | |
| " " | " Christmas Presents #57 | | M | 560 | 85 | | | | | | |
| " " | " Miscellaneous Expenses | | | 1337 | 13 | | | | | | |
| | | | $ | 1M | 966 | 97 | | | $ | 1M | 966 | 97 |

penses of holding the trade, cost of all picnics and festivals, that may be given by the company.

At the end of the year transfer the total amount at debit to expenses of holding trade (Account No. 53).

No. 55—WORK DONE FOR CUSTOMERS. Charge to this account the cost of all work done for customers, in lieu of giving them cash donations, such as repairs and improvements to saloons (not owned by brewing company) ice-boxes, pumps, bar fixtures, mending windows, painting, etc., where the fixtures are not owned by the company. It is preferable to carry these in a separate account as above named rather than to charge them all to donations or to collecting expenses.

At the end of the year transfer the total amount to expenses of holding trade (Account No. 53).

No. 56—ADVERTISING ACCOUNT. Charge this account with all newspaper or space advertising, posters, show-cards, calendars, paper Bock Beer signs, advertising cards, programs and the like, but do not charge here the cost of permanent beer signs. This account should not include any items paid for charity, for which see charity account, which is a general expense (Account No. 79).

At the end of the year transfer the balance to expenses of holding trade (Account No. 53).

No. 57—CHRISTMAS PRESENTS. Charge to this account all special allowances to customers made in the form of beer given away and called Christmas presents or Christmas cards. Also Christmas gifts to bartenders in any form. But bonafide, voluntary Christmas presents to employes of the company, must not be charged here, but rather to the account to which the regular wages of such employes are charged or to general expense account.

At the end of the year transfer the balance to expenses of holding trade (Account No. 53).

No. 58—SALOON FIXTURES EXPENSE. Charge to this account the cost





of maintaining and repairing saloon fixtures that are owned by the company, but not those that are owned by others.

At the end of the year transfer to profit and loss (Account No. 90).

No. 59—MAINTENANCE OF BEER SIGNS. Charge to this account the cost of repairing and replacing permanent beer signs—wood, glass, iron or electric—but do not charge paper Bock Beer signs or calendars for which see advertising, (Account No. 56). In a conservatively governed plant it is customary to charge off the entire cost of permanent signs at the time of payment. This line of expense has got nothing to do with maintenance of plant.

At the end of the year transfer the balance of this account to profit and loss (Account No. 90).

No. 60—ELECTRICITY FOR SIGNS. All expenses of operating illuminated signs, whether paid for direct by the brewing company, or allowed to customers as a special concession. This expense is really for advertising.

At the end of the year transfer the balance to profit and loss (Account No. 90).

No. 61—DEPRECIATION OF EQUIPMENT. The depreciation or loss through wear and tear of horses, wagons, harness and agency equipment is an expense that attaches to delivery (classified in this article as distribution) and it must not be confused with depreciation of plant which is a manufacturing charge, (classified as production).

Of all the above named properties a detailed inventory should be taken at the close of each year and the shrinkage in the account should be written off to depreciation of equipment.

At the end of the year transfer the balance of this account to profit and loss (Account No. 90).

No. 62—BEER STAMPS. Charge to this account all revenue stamps purchased. Credit revenue stamps used for ale and porter (see Account No. 63). At end of the year bring down as a balance the cost of revenue stamps on hand, and carry the balance of the account to profit and loss (Account No. 90).

No. 63—ALE AND PORTER STAMPS. Make a monthly entry in the journal, charging ale and porter stamps and crediting beer stamps with the cost of revenue stamps used for ale and porter (going by the recorded number of barrels sold).

No. 64—TAXES ACCOUNT. Charge to this account, city, state, school and other taxes on the brewery property, also franchise tax or personal property tax, in fact all taxes except stamps. But taxes on houses, saloons or other properties, not part of the brewery, must be charged to taxes and insurance on outside properties.

At the end of the year transfer the balance of this account to administration (Account No 80).

No. 65—LICENCE ACCOUNT. Charge to this account the cost of securing

brewer's license for the company, also cost of license for saloons conducted by the company. Money advanced to secure licenses for customers must be charged up to them as loans.

At the end of the year transfer the balance of this account to administration (Account No. 80).

No. 66—BREWERS' ASSOCIATIONS. Charge to this account all subscriptions or assessments paid to voluntary associations of brewers—national, state and city—but not assessments to Bottlers' Associations.

At the end of the year transfer the balance of this account to administration (Account No. 80).

No. 67—INSURANCE ACCOUNT. All premiums on insurance policies of every description will be charged to this account, fire, boiler, casualty and any other premiums.

At the end of the year bring down the unexpired portions of all premiums paid and transfer the balance of the account to administration (Account No. 80).

No. 68—OFFICERS' SALARIES. Charge this account with the salaries of officers—the president, secretary, treasurer and general manager, unless either of these may act as brewmaster, book-keeper or collector. (Brewmaster's salary will be charged to "brewmaster's salary account," book-keeper's salary to office salaries and collector's salary to collectors' wages.)

At the end of the year transfer the total amount to administration (Account No. 80).

No. 69—DIRECTORS' FEES. As the title suggests, this account is to carry the payments to directors for their attendance at meetings of the board. Salaried officers, who may happen to be on the board, should not be paid directors' fees.

At the end of the year transfer the balance to administration (Account No. 80).

No. 70—SALARIES OF BOOK-KEEPERS AND CLERKS. Charge all clerical salaries to this account (book-keepers, clerks, stenographers), post direct from the entry in the cash book.

At the end of the year transfer the balance of this account to administration (Account No. 80).

No. 71—MISCELLANEOUS WAGES. Charge to this account any wages other than those provided for by other accounts, such as watchman, janitor, porter, carriage drivers (if any); but not painters, carpenters, coopers or mechanics.

At the end of the year transfer the total amount to administration (Account No. 80).

No. 72—PRINTING AND STATIONERY. Charge to this account such items as letter-heads, bill-heads, statements, envelopes, printed forms, writing paper, blank books, pens, pencils, ink, bands, files, stationery, but not beer labels, bottle labels, calendars, beer signs, or the like.





At the end of the year transfer the balance of the account to administration (Account No. 80).

No. 73—LEGAL EXPENSES ACCOUNT. Charge this account with all law costs and attorneys' fees, legal expenses and cost of recording deeds, mortgages, etc., taking judgment and similar expenses. Close at the end of the year by transferring balance to administration (Account No. 80).

No. 74—TABLE EXPENSES. Charge here all provisions, supplies, wines and mineral waters for use in the dining room at the brewery, if one is maintained for officers and employes; also wages of the steward, cook, waiter or others employed for this purpose.

At the end of the year transfer to administration (Account No. 80).

No. 75—POSTAGE, TELEGRAMS AND TELEPHONE. To this account charge all postage stamps purchased, cost of all telephone service and tolls, also telegrams.

At the end of the year transfer amount at debit to administration (Account No. 80).

No. 76—OFFICE EXPENSES. Charge to this account all items, such as cleaning office, lighting office, ice for office use, dials for watchman's clock, office supplies, subscriptions to newspapers, brewers' magazines, advertising meetings of shareholders, matches and such petty office expenses as are not provided for elsewhere. Salaries must not be charged to this account.

Be careful not to charge items to this account that can properly be distributed to other expense accounts. Office Expense Account is often made a "dumping ground" for miscellaneous expenses that are hard to locate, or where information is not to hand. This should be carefully avoided; look well for some other account to which the item should be properly chargeable.

At the end of the year transfer the balance of the account to administration (Account No. 80).

No. 77—MISCELLANEOUS GENERAL EXPENSES. Charge to this account any expenses of a general nature, that cannot, appropriately, be charged to any other account in this distribution. This account is often made a "dumping ground" for miscellaneous charges that are hard to locate. This should be carefully avoided.

At the end of the year transfer the balance of the account to administration (Account No. 80).

No. 78—OFFICERS' TRAVELING EXPENSES. Charge this account with the traveling expenses of the president, secretary or treasurer, or any of the officials when away on business. If either of the officers acts as collector, his expenses, while engaged, should be charged to collecting expense account.

At the end of the year transfer the total amount of this account to administration (Account No. 80).

No. 79—CHARITY ACCOUNT. Charge to this account money paid for charities, church fairs, hospitals and the like (posting direct from cash book).

This account should only be used for money given, voluntarily, in aid of charities, and should not include the cost of advertising cards in programs or the like, nor money given away to stimulate trade or to hoid customers, for which see Donations and Presents (Account No. 54).

At the end of the year transfer the balance of the account to debit of administration (Account No. 80).

a/c #80 Administration A/c.

| 1907 | | | | | | 1907 | | | |
|---|---|---|---|---|---|---|---|---|---|
| Oct 31 | To Taxes | #64 | 1146 | 50 | | Oct 31. By Balance transferred | | | |
| " | " License | #65 | 1279 | 50 | | to Prohibition a/c | 3971 | 68 | |
| " | " Brewers Association | #66 | 1965 | 02 | | | | | |
| " | " Insurance | #67 | 1988 | 05 | | | | | |
| " | " Offices Salaries | #68 | 1052 | 95 | | | | | |
| " | " Directors Fees | #69 | 1100 | 00 | | | | | |
| " | " Salaries of Superintendents | 70 | 5105 | 66 | | | | | |
| " | " Miscellaneous Wages | #71 | 1880 | 46 | | | | | |
| " | " Printing & Stationery | #72 | 308 | 70 | | | | | |
| " | " Legal Expenses | #73 | 1022 | 75 | | | | | |
| " | " Table Expenses | #74 | 891 | 93 | | | | | |
| " | " Postage, Telegrams, Telephones | 75 | 815 | 32 | | | | | |
| " | " Office Expenses | #76 | 1990 | 32 | | | | | |
| " | " Misc. General Expenses | 77 | 3140 | 46 | | | | | |
| " | " Offices Traveling Expenses | 78 | 2050 | 00 | | | | | |
| | | | $ 3971 | 68 | | | $ 3971 | 68 | |

No. 80—ADMINISTRATION ACCOUNT. The object of this account is to group together the various expenses of administration when closing the books at the end of the year.

All the accounts enumerated in this distribution from Taxes, No. 64, to Charity Account, No. 79, are to be closed into administration account. At the end of the year transfer the balance of administration account to profit and loss (Account No. 90).

No. 81—PROVISION FOR BAD DEBTS. Bad debts are inevitable in a brewery. The charge will amount to an average of from ten to fifteen cents per barrel sold, according to the class of trade catered to. A pro-





vision should be made on the books each month, credit being given to bad debts reserve account.

At the end of the year transfer the balance of the account to profit and loss (Account No. 90).

No. 82—SUNDRY LOSSES. Charge to this account all losses other than bad debts or uncollectible loans; such losses, for example, as damages through accidents to teams, accidents to employes, dead horses, demolished wagons, or similar.

At the end of the year transfer the balance to profit and loss (Account No. 90).

No. 83—INTEREST ACCOUNT This account is for interest paid to banks on loans, interest on bank overdrafts, interest on bills payable, interest charged on temporary advances not secured by mortgages, discounts (really interest) on customers' notes discounted by banks.

Also, (on the credit side), interest received from customers on loans, which it will be time enough to credit when the collection is made.

Mortgage interest is not to be posted here. At the end of the year transfer the balance to profit and loss (Account No. 90).

No. 84—CASH DISCOUNT. Credit to this account all cash discounts received in respect of the prompt payment of invoices for materials and supplies purchased. Discounts allowed to beer customers are of the nature of allowances, for which see beer allowances (Accounts No. 4 and No. 5).

At the end of the year transfer the balance to the credit of profit and loss (Account No. 90).

No. 85—RENTS OF OUTSIDE PROPERTIES. Credit to this account all money collected with respect to rents of houses, saloons, beer gardens, pleasure resorts or the like, owned or leased by the company (posting direct from cash book).

At the end of the year transfer the balance of the account to the credit of profit and loss (Account No. 90).

No. 86—MAINTENANCE OF OUTSIDE PROPERTIES. To this account should be charged all outlay in repairing houses, saloon properties, beer gardens, pleasure resorts or the like, owned or leased by the company.

At the end of the year transfer the total amount to debit of profit and loss (Account No. 90).

No. 87—TAXES AND INSURANCE ON OUTSIDE PROPERTIES. Charge to this account all taxes and insurance premiums upon houses, saloons, beer gardens, pleasure resorts or the like (posting direct from the cash book).

At the end of the year transfer the balance to profit and loss (Account No. 90).

No. 88—INTEREST ON BONDS. Charge this account with the interest paid on any bonds, which are secured by mortgage on the plant, interest received on mortgage will go to another account. The balance at the

a/c # Profit and Loss A/c

| 1907 | | | | | | 1907 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Oct 31 | To Beer consumed as per | 85 | 1 | 382 | 25 | Oct 31 | By Sales | 505 | 015 | 25 |
| " " | " Brewing a/c | 136 | 150 | 486 | 21 | | " Interest a/c | 83 | 1 | 500 | 00 |
| " " | " Maintenance a/c | 137 | 13 | 401 | 24 | | " Cash Discount | 84 | | 109 | 21 |
| " " | " Stock on hand (Mft) | | 4 | 135 | 50 | | " Profit of Outside Properties | 85 | 5 | 100 | 04 |
| " " | " Team delivery a/c | 137 | 83 | 792 | 42 | | | | | | |
| " " | " Collecting a/c | 138 | 22 | 125 | 30 | | | | | | |
| " " | " Expenses of Holding Fairs | 58 | 14 | 966 | 97 | | | | | | |
| " " | " Maintenance of Premises | 139 | | 949 | 36 | | | | | | |
| " " | " Salem Fixtures Expense | 91 | 2 | 008 | 70 | | | | | | |
| " " | " Electricity for Engine | 160 | 1 | 090 | 03 | | | | | | |
| " " | " Depreciation of Plant | | 10 | 312 | 12 | | | | | | |
| " " | " " Equipt | 61 | 3 | 220 | 79 | | | | | | |
| " " | " Beer Stamps | 162 | 81 | 092 | 00 | | | | | | |
| " " | " Administration a/c | 140 | 29 | 711 | 68 | | | | | | |
| " " | " Pension for Bad Debts | 141 | 12 | 163 | 80 | | | | | | |
| " " | " Sundry Losses | 142 | 1 | 280 | 00 | | | | | | |
| " " | " Int. of Outside Properties | 116 | 3 | 557 | 25 | | | | | | |
| " " | " Taxes & Insurance on Outside properties | 147 | | 984 | 04 | | | | | | |
| " " | " Int. on Borrowed Money | | 5 | 970 | 11 | | | | | | |
| " " | " " Bonds | 118 | 6 | 000 | 00 | | | | | | |
| " " | Balance | | 102 | 064 | 64 | | | | | | |
| | | | $511 | 738 | 50 | | | | $511 | 738 | 50 |
| | | | | | | 1908 Nov 1 | By Balance | | 102 | 064 | 64 |

end of the fiscal year should be written off to profit and loss (Account No. 90).

No. 89—DIVIDEND ACCOUNT. Credit this account and charge surplus account with the amount of dividends declared by the directors, giving each dividend a number and stating the date of the directors' meeting. All cash paid to shareholders, with respect to dividends, will be charged to this account.

No. 90—PROFIT AND LOSS ACCOUNT. This account remains closed throughout the year. It is used to group together the balances of the accounts named in this distribution. —*George Wilkinson, C. P. A.*





## (310) BRICK MANUFACTURING BUSINESS ACCOUNTING.

It is gradually becoming clearer to the many, that old style methods cannot survive in the face of present competition. Only the systematic who know where they are, at all times, can hope to hold their own in the conflict of close prices now going on around us. Success in manufacture does not lie in the final result of the work so much as that which goes to make up the result; that is the cost at the different stages and processes of a manufactured article's development.

A cost system in operation means a tight rein on business at all times. Should competition and low prices cause worry, the figures are there to guide one to the spot where the process is too costly. Oftentimes an adjustment of the cost in one or more departments means the difference between profit and loss.

Before introducing the system of cost accounts, it would perhaps be as well to mention the books required for this class of business and at the same time, touch upon the method of keeping some of the most important.

Cash Book

| Date | | V No | Folio | Mdse Discount | Receipts Personal | Receipts General | Disbursements Personal | Disbursements General |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

FORM 1.

Petty Cash Book.

Dr. Cr.

| Date | Particulars | Amt. | V No. | Disbursements Particulars | Disbursements Amt. | Distribution of Disbursements. Supplies | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
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FORM 2.

Cash Book.—An important book and one that requires careful attention. Form 1 is a good method of ruling for a cash book, and could be varied, if necessary.

Enter cash received from all sources in the cash book at the time of each transaction, in the columns marked Personal or General, as the case may be. Deposit all cash so entered in the bank. The debit side of the cash book will represent the deposit or credit of the pass book, taking into account the cash on hand (if any) after banking hours.

Pay all disbursements by check, the credit side of the cash book will represent the debit side of the pass book. The difference between the debit and credit side of the cash book will represent the state of the bank account, taking into consideration the cash on hand (if any) after banking hours.

If this system is strictly adhered to, there will be no trouble balancing the cash and ascertaining how the bank account stands.

For discount on bills, checks, drafts, etc., enter the face value on the debit side of the cash book and request the bankers to put through a debit slip for the charges or discount. Enter this sum on the credit side of the cash book, the debit slip taking the place of a check.

It will be seen that a special column is ruled on the left-hand side of the cash book to be used in cases where discount is allowed off the invoice value of the goods. The discount is entered in this column at the same time as the payment is entered and posted to the credit of the personal account at the same time as the cash is credited. The sum total of the discount column is posted to the debit of Merchandise Discounts at the end of the month.

For current expenses issue a check monthly. Charge this check in the general cash book to petty cash account to be posted to that account in the general ledger; also enter the amount with the folio of the general cash book in the petty cash book.

Petty Cash Book. In the petty cash book, ruled with the necessary columns, enter the amount received on the debit side with the folio of the general cash book. Vouchers numbered consecutively and entered according to number in the petty cash book should be signed for all expenditure, stating distinctly the nature of each disbursement; each disbursement being numbered in the petty cash book to correspond with the petty cash voucher.

The vouchers, if found correct, are to be passed by the manager and initialed by him at the end of each month.

Credit the sum total of the various disbursement columns in the petty cash book to petty cash account in the general ledger. Debit the total of each disbursement column in the petty cash book to a corresponding account in the general ledger. The balance of the petty cash account in the general ledger should correspond with the petty cash book balance.

At the end of each month the amount on hand should be brought for-





ward to the succeeding month and be augmented by an amount sufficient to increase it to the amount on hand at the commencement, thereby having on hand at the beginning of each month a stated cash balance.

Form 2 is a ruling for the petty cash book.

Additional credit columns may be added in order to save posting. A "sundries" column should be provided, of which an analysis is made at the end of each month, and the totals posted.

Sales Book. A specimen of the sales book ruling is given below. The object of the quantity and value columns is to keep a separate record of the quantities of brick, block and tile sold in order to credit the stock

Sales Book

| Date | Fo | | Amt. | Brick | | Block | | Tile | | | | | | | | Sundries | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Qnty. | Amt | Qnty. | Amt | 2" | 2½" | 3" | 3½" | 4" | 5" | 6" | Amt | Qnty. | Amt. |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Form 3.

accounts, at stock cost, and debit Sales Cost account with the quantities by means of a journal entry; also to credit sales account.

Cash Sales. Enter all cash sales in the sales book in a similar manner to the credit sales and post the same to the debit of a Sundry Cash Sales account (writing the names of each purchaser) in the personal ledger. Enter the cash paid by each purchaser separately in the cash book and credit the Sundry Cash Sales account.

A counterfoil receipt book should be kept and a receipt given for all cash sales. This counterfoil receipt book should be checked with the cash book and the Sundry Cash Sales account should agree.

Bill Book. It will be necessary to keep a bills receivable and payable book. Enter all bills receivable in this book; which post to the credit of the respective personal accounts and to the debit of bills receivable. If discounted, enter the face value in the cash book with number, etc., and post to the credit of bills receivable account, requesting the bank to charge the bank account with the discount by means of a debit slip. Enter this debit slip in the cash book in the same way as if a check were issued. If a bill is returned unpaid issue a check for it and charge the amount to the proper account in the personal ledger.

Bills Payable. Enter all bills payable issued in the bill book and

post to the debit of the Personal Account Payable crediting bills payable.

Accommodation Paper. It may be necessary to open an Accommodation Paper account in the ledger. In a case of this kind it would be advisable to use a separate part of the bill book for this class of paper; posting from the bill book to the credit of Accommodation Paper account (entering particulars) and the debit of the party, firm or bank to whom it is given.

When discounting enter face value in cash book on the debit side having the usual debit slip charged through the bank account for the discount. Post the amount thus entered to the credit of the party or bank discounting the paper. Accommodation Paper account will show the liability and when the amount is repaid charge to Accommodation Paper account, thus closing the account.

Distribution Journal for Goods Purchased. Issue an order for all goods purchased. Check off all goods received with the stub of the order book and invoice, and if found correct have invoice and stub properly initialed; at the same time marking on the face of the invoice the distribution or the account to which the goods are chargeable. Number the invoices consecutively and enter them in the distribution journal, each entry also being numbered to correspond with the invoice number; credit the respective personal accounts payable and charge the several stock or other accounts as the case may be.

A stock book containing separate accounts for the various supplies purchased should be kept properly written up from the distribution journal. Charge all freight and other charges in connection with the stock to the respective stock accounts in the general ledger and also to a corresponding account in the stock book. In case of freight charges debit the proper stock account in both the general ledger and stock book and credit the transportation company's account in the personal ledger.

In every case the debit side of the various stock accounts must agree with the debit side of the same account in the stock book.

In addition to the invoices for supplies purchased the distribution

Distribution Journal

| Date | Name | I # | Fo | Cr. Invoice Amount | Dr. Stock Wood Bought Qnty. | Dr. Stock Coal Bought Qnty. | Dr. Sundry Supplies Bought Qnty. | Dr. Qnty. | Dr. Qnty. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Form 4.





journal is ruled for the diffusion of all other purchases in connection with the business.

At the end of each month or fixed period inventories of the various stocks on hand should be taken separately; the inventories of the various stocks on hand being placed to the credit of the respective stock accounts in both the general ledger and stock book and the difference between the debit and credit sides of each stock account is charged to the debit of the various manufacturing accounts and credited to the respective stock accounts by means of an entry through the transfer journal. The inventory balances are brought down to the debit of the various stock accounts in the general ledger and the stock book which should agree.

The transfer journal is used for all journal entries in connection with the business.

If a store-keeper is employed, it would be his duty to keep an accurate account of all the stores used daily, crediting the various stock accounts and debiting the various manufacturing accounts.

Stock Book of Clay Manufactured and in Process—Clay Account. An account is opened in this book for the purpose of recording all clay drawn in and used. It will be found by examining the ruling provided for this account that provision is made for the quantity of clay drawn in, on the one side and the quantity used is credited on the other and charged either to green brick, green block or green tile account as the case may be.

Quantity Clay Stock Account

Daily Record of Clay Stock Stored — Daily Record of Clay Stock Used

| Date | No. Yds Clay Stored | Date | Total No. Yds Clay Used each day. | Distribution of Clay Stock Used | | Making Tile | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Making Brick | Making Block | 2" | 2½" | 3" | 3½" | 4" | 5" | 6" |
| 1 | | 1 | | | | | | | | | | |
| 2 | | 2 | | | | | | | | | | |
| 3 | | 3 | | | | | | | | | | |
| 4 | | 4 | | | | | | | | | | |
| 5 | | 5 | | | | | | | | | | |
| 6 | | 6 | | | | | | | | | | |
| 7 | | 7 | etc. | | | | | | | | | |
| 8 | Yds Clay Stored | | | | | | | | | | | |
| 9 | " " Used | | | | | | | | | | | |
| 10 | etc. " " On hand | | | | | | | | | | | |

Form 5.

It will be seen that columns are provided to show the quantity of green brick, block or tile produced from the quantity of clay so charged. Green brick, block or tile accounts are credited with the quantities taken from the respective green stock accounts to the kilns; the kilns being charged with the quantities at cost. The kiln accounts show the quantities of green stock set in the kilns and the output of the kilns, and are also charged with the additional expense in burning the various products. The

quantities produced as a result of the burning divided into the debit side of the kiln accounts will give the prime cost.

LEDGERS. Personal ledger contains all personal accounts receivable and payable and can be balanced independently of the general ledger by means of separate debtor and creditor adjustment accounts.

All other accounts are kept in the general ledger commencing with the cost accounts; to commence at the foundation the first of which is—

CLAY STOCK ACCOUNT.—Charge wages from pay roll, storing clay, to this account. Enter number of yards stored. The value and life of the clay-bed should be ascertained. The value of the clay used therefrom should be computed upon this basis; the value of the clay so used being debited to "clay stock" and credited to real estate. Credit number of yards taken from stock for the purpose of manufacturing, and charge same to proper account. This account, if properly kept, will show the number of yards and cost of the clay in stock.

BRICK MANUFACTURED GREEN.—Charge to this account clay taken from stock at clay stock price; enter number of yards in description column of ledger and credit "clay stock." Charge wages from pay roll and supplies from stock sheet. Charge all other expenses in connection with this account

Green Stock Account.

| Date | | Brick Made (Green) | Block Made (Green) | Tile Made-(Green) | Date | | Green Brick Taken to Kilns | Green Block Taken to Kilns | Green Tile Taken to Kilns. 2" | 2½" | 3" | 3½" | 4" | 5" | 6" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 1 | | | | | | | | | |
| | 2 | | | | | 2 | | | | | | | | | |
| | 3 | | | | | 3 | | | | | | | | | |
| | 4 | | | | | 4 | | | | | | | | | |
| | 5 | | | | | 5 | | | | | | | | | |
| | 6 | | | | | 6 | | | | | | | | | |
| | 7 | | | | | 7 | | | | | | | | | |
| | 8 | | | | | 8 | | | | | | | | | |
| | 9 | | | | | 9 | | | | | | | | | |
| | 10 | etc. | | | | 10 | | | | | | | | | |

FORM 6.

from the cash books, etc.; also percentage of engine room account and repairs. Ascertain the number of brick manufactured and cost per thousand. Credit this account with the brick supplied to the kilns and charge the kiln account at cost.

BLOCK MANUFACTURED GREEN. Charge this account with the stock value of clay used, entering number of yards in ledger. Charge with wages from pay roll and supplies from stock sheet. Charge all other expenses in connection with this account from the cash books, etc.; also percentage of engine room account and repairs. Ascertain the number of blocks manufactured and cost per thousand and credit this account with the block supplied to the kilns, at cost price per thousand; debit the kilns at cost price.





TILE MANUFACTURED GREEN. Charge this account with the stock value of clay used entering number of yards in ledger. Charge with wages from pay roll and supplies from stock sheets. Charge with all other expenses in connection with this account from the cash books, etc.; also percentage of engine room account and repairs. Ascertain the number of tile manufactured, entering the sizes of tile in ledger in proper columns, and average cost of each size; credit this account with the tile supplied to the kilns according to size at cost, and charge the kiln account at cost.

BURNT BRICK KILN ACCOUNT. Charge to this account brick taken from green stock at cost; entering quantity in column headed "green stock quantity" in ledger.

Charge cost of burning from pay roll and stock sheet. Charge other expenses from cash books, etc., in connection with the burning of brick and divide output into sum total at the debit of this account to arrive at the cost per thousand burnt. Enter to credit output of kiln and debit burnt brick stock account, entering in column quantity.

BURNT BRICK STOCK ACCOUNT. This account is charged with stock from kilns at cost and quantity is entered in column provided in ledger account.

All burnt brick sold must be credited to this account through the journal at cost, entering quantity sold on credit side of the account, and the brick sales cost account is debited with the amount.

BRICK SALES COST ACCOUNT. This account is charged with all brick sold at cost and burnt brick stock account is credited. The quantity is obtained by ascertaining from the sales book the number of bricks sold

DAILY TIME CARD

.....190...

| | | | Rate | Amount |
|---|---|---|---|---|
| ..... | Hours | Charge Clay Stored | @ | $ |
| ..... | " | Mfg Green Brick | @ | $ |
| ..... | " | " " Tile | @ | $ |
| ..... | " | " " Block | @ | $ |
| ..... | " | " Burnt Block | @ | $ |
| ..... | " | " " Tile | @ | $ |
| ..... | " | " " Brick | @ | $ |
| ..... | " | Loading Cars | @ | $ |
| ..... | " | " Teams | @ | $ |
| ..... | " | Repairs Plant & M | @ | $ |
| ..... | " | " Kilns | @ | $ |
| ..... | " | " Blogs | @ | $ |
| ..... | " | Dead Work | @ | $ |
| ..... | " | New Bldgs | @ | $ |
| ..... | " | New Kilns | @ | $ |
| ..... | " | New Plant & M | @ | $ |
| | Hours | Total | @ | $ |

FORM 7.

for the month. The cost per thousand to be ascertained from the burnt brick stock account.

Burnt Block Kiln Account. Charge to this account block taken from green stock at cost; entering quantity in proper column in ledger.

Charge cost of burning from pay roll and stock sheet. Charge other expenses from cash books, etc,. in connection with the burning of block and divide output into the sum total at the debit of this account, to arrive at cost per thousand burnt. Enter to credit output of kiln and debit burnt block stock account, entering in column quantity.

Burnt Block Stock Account. This account is charged with stock from kilns at cost and quantity is entered in column provided in ledger account.

All burnt block sold must be credited to this account through the journal, at cost, entering quantity sold on credit side of the account, and the block sales cost account is debited with the amount.

Block Sales Cost Account. This account is charged with all block sold at cost and burnt block stock account is credited. The quantity is obtained by ascertaining from the sales book the number of block sold for the month; the cost per thousand to be ascertained from burnt block stock account.

Burnt Tile Kiln Account. Charge to this account tile taken from green stock at cost, entering quantity in proper column in ledger.

Charge cost of burning from pay roll and stock sheet. Charge other expenses from cash books, etc., in connection with the burning of tile and divide output into sum total at the debit of this account to arrive at cost per thousand burnt. Enter to credit output of kiln and debit burnt tile stock account, entering in column quantity, averaging cost of various sizes.

Burnt Tile Stock account is charged with stock from kilns at cost and quantity is entered in column provided in ledger account. All burnt tile sold must be credited to this account through the journal at cost, entering quantity sold on credit side of the account and the tile sales cost account is debited with the amount, entering various sizes in proper columns.

Tile Sales Cost account is charged with all tile sold at cost and burnt tile stock account is credited; the quantity is obtained by ascertaining from the sales book the number of tile sold for the month; the cost per thousand to be ascertained from burnt tile stock account, entering various sizes in proper columns.

Distribute repairs to plant and machinery and repairs to buildings accounts on a percentage basis over the brick, tile and blocks; crediting these accounts, debiting the brick, tile and block burnt accounts.

Charge engine room account with wages from pay roll and supplies from stock sheets and other expenses from cash books, etc. Credit sum total at the end of month and charge same on a percentage basis to green brick, tile and block manufacturing accounts.





Kiln Account

Intake of Kilns - Taken from Green Stock and set in Kilns  Output of Kilns—Burnt Stock Taken out of Kilns.

| Green Brick set in Kiln #2 | | Green Block Set in Kiln #2 | | Green Tile set in Kiln #2 | | | | | | | Burnt Brick Taken out Kiln #2 | | Burnt Block Taken out Kiln #2 | | Burnt Tile Taken out Kiln #2 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | No. | Date | No. | Date | 2" | 2½" | 3" | 3½" | 4" | 5" | 6" | Date | No. | Date | No. | Date | 2" | 2½" | 3" | 3½" | 4" | 5" | 6" |
| 1 | | 1 | | 1 | | | | | | | | 1 | | 1 | | 1 | | | | | | | |
| 2 | | 2 | | 2 | | | | | | | | 2 | | 2 | | 2 | | | | | | | |
| 3 | | 3 | | 3 | | | | | | | | 3 | | 3 | | 3 | | | | | | | |
| 4 | | 4 | | 4 | | | | | | | | 4 | | 4 | | 4 | | | | | | | |
| 5 | | 5 | | 5 | | | | | | | | 5 | | 5 | | 5 | | | | | | | |
| 6 | | 6 | | 6 | | | | | | | | 6 | | 6 | | 6 | | | | | | | |
| 7 | | 7 | | 7 | | | | | | | | 7 | | 7 | | 7 | | | | | | | |
| 8 | etc. | 8 | | 8 | | | | | | | | 8 | | 8 | | 8 | | | | | | | |
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Form 8.

Selling Expenses. Charge to general selling expenses—brick—account all expenses other than loading cars and loading teams in connection with the selling of brick.

Charge cost of loading on cars—brick—account with all expenses in connection with loading of brick on cars.

Charge cost of teaming—brick—account with all expenses in connection with the teaming of brick.

Charge to general selling expenses—tile—account all expenses other than loading cars and teams in connection with the selling of tile.

Charge cost of loading on cars—tile—account with all expenses in connection with loading tile on cars.

Charge to cost of teaming—tile—account all expenses in connection with the teaming of tile.

Charge to general selling expenses—block—account all expenses other than loading cars and teams, in connection with the selling of block.

Charge to cost of loading on cars—block—account all expenses in connection with loading block on cars.

Charge to cost of teaming—block—account all expenses in connection with teaming of block.

Charge to salaries earned account salaries earned and credit salaries paid, and distribute over the brick, block and tile green and burnt cost accounts on a percentage basis that portion chargeable thereto; the balance being a selling expense.

Charge to salaries paid account all salaries paid from the cash book. Credit by journal entry, monthly salaries earned, and debit salaries earned account.

Charge to pay roll account all wages paid. Credit this account at the end of each month with all wages earned (from the wages sheet or book as the case may be) and debit distribution accounts therefor.

Stock Accounts. Charge to wood stock account all wood purchased,

Wages Sheet and Distribution.

For _____ Week ending _____ 19__

| Name | M | T | W | T | F | S | Hours | Rate | Pay-Roll Amt Earned | Clay Stock Stored | Making Green Brick | Making Green Tile | Making Green Blocks | Wages Engine Room | Repairs to Plant M | Repairs to Bldgs. | Dead Work | Cost Labor Burning Of Brick | Tile | Block | Labor-Selling Expense Loading Cars | Loading Teams | Sund. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | |
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FORM 9.

cost of freight charges, etc., in connection therewith; credit with wood used and debit proper account.

Charge to coal stock account all coal purchased, cost of freight charges, etc., in connection therewith; credit with wood used and debit proper account.

Charge to oil, waste and sundry supplies account all oil, waste and supplies purchased, cost of freight charges, etc., in connection therewith, and credit with oil, waste and supplies used, and debit proper account.

Charge green brick, green tile or green block accounts with supplies used as ascertained from monthly stock sheet, also burnt brick, burnt tile or burnt block in connection therewith.

Credit from the sales book all brick sold to brick sales account.

Credit from the sales book all tile sold to tile sales account.

Credit from the sales book all block sold to block sales account.

Credit to sundry sales account all sundry sales other than plant and machinery or tools sold.

### (311) BRICK WORK MEASUREMENT.

Dimensions of common bricks, 7¾ to eight inches long; 4¼ inches wide; 2½ inches thick. Front brick, 8¼ inches long, 4½ inches wide, 2½ inches thick. Fire brick, 9⅛ inches long, 4⅝ inches wide, 2⅜ inches thick. Twenty common bricks to a cubic foot. Fifteen common bricks to a foot of eight-inch wall.

### (312) BRIDGE BUSINESS ACCOUNTING.

Bridges are almost always constructed on contract, so that an account should be opened with each contract, to which should be charged cost of production and percentage of general expense, and to which, on completion, should be credited the amount at which the contract was secured, the customer being debited.





Each contract account by this method becomes a trading account exhibiting gross profit.

The treatment of uncompleted contracts on the balance sheet has been previously considered.

### (313) BROKERAGE.

A commission charged on negotiating loans through another party.

The rate of commission charged by regular brokers is, to a certain extent, regulated by an association of brokers. Such associations exist in most centers of commerce in connection with the Stock Exchanges and Boards of Trade. The rules of New York Stock Exchange are as follows:

ARTICLE XLIII.—Section 1. Commissions shall be charged and paid under all circumstances and upon all transactions, both purchases and sales or upon contracts for the receipt or delivery of securities. Such commissions shall be calculated in all cases upon the par value of securities, and shall be at the rates hereinafter named, and such rates shall be in each case the lowest commission that may be charged by any member of the Exchange, and shall be absolutely net and free from all or any rebatement, return, discount or allowance in any shape or manner whatsoever, or by any method or arrangement, direct or indirect. And no bonus, percentage or portion of the commission so established shall be given, paid or allowed, directly or indirectly, to any clerk or person for business sought or procured for any member of the Exchange.

Section 2. On all business for parties not members of the Exchange, including joint account transactions in which a non-member is interested, transactions for partners not members of the Exchange, and for firms of which the Exchange member or members are special partners only, the commission charged shall not be less than ⅛ of 1 per cent.

Section 5. Any member offering to do business for less than the foregoing rates violates this Article, and is subject to the penalty for so doing.

Section 7. The penalty for the violation of this Article shall be, for the first offense, suspension for a period of from one to five years, the term to be fixed at the discretion of a majority of the governing committee present at a meeting thereof. For the second offense the penalty shall be expulsion and the membership of the party expelled shall be disposed of forthwith by the Committee on Admissions.

"It will be observed from Section 1 that commissions are charged on the par or nominal value of all stocks and securities; that is to say, New York Central stock is worth at par $100 a share, but it may be worth in the market only $90 a share. Now suppose a man wants to buy 100 shares of this stock, the par value of which is $10,000, he puts up a margin of $1,000. His broker credits him with $1,000 and buys the stock for his

account for $9,000, charging his account with $9,000 and $12.50 commission, which is one-eighth of 1 per cent on $10,000. He then puts up the balance of the purchase price, $8,000, either out of his own funds or funds secured from his banker. His client then orders him to sell; he does so, and then charges him another $12.50 commission and interest on the $8,000 he borrowed or advanced for him at the prevailing rate of interest; the balance then stands to the client's credit unless the account is to be closed. It often happens that the broker makes something on the interest charged. For example, the prevailing rate of interest may be 6 per cent, but the broker may be able to borrow money at 4 per cent, so he makes the difference of 2 per cent. Of course in putting up collateral security the broker has to put up collateral away in excess of the amount borrowed. From this it will be seen that the broker has to have a large capital of his own on which to operate. If a broker buys or sells stock at a premium, he gets his commission on the par value only, so it will be seen that the rule works

The broker has other opportunities of making money without taking the risk of buying or selling on his own account. For instance, it often happens that one customer sells and another buys a given number of shares of the same stock. In this case the broker neither buys nor sells a single share, but simply charges to the account of the purchasing customer the amount that would be required to buy the stock, and on the other hand, he credits the selling customer with the amount which the shares would bring if really sold on exchange. The purchasing customer's account then shows a debit balance on which interest is charged at the ruling rate. At the same time the selling customer is charged a bonus for the use of the shares of stock which it would have been necessary for the broker to borrow in order to make good his delivery had he really sold the shares on 'change. Thus the broker is protected from loss no matter which way the market goes, while he gets his commission for buying and selling, his interest on money supposed to have been borrowed, and his bonus on stock certificates supposed also to have been borrowed, when, as a matter of fact, he has neither bought, sold nor borrowed but simply made a few entries on his books."—*(J. J. Rahill.)*

## (314) BROKERAGE BUSINESS.

ORDER AND COMMISSION RECORDS. Orders in the woolen business are taken mostly in January and July for goods to be delivered during the ensuing six months; in fact, oftentimes deliveries are made eight or nine months after date of original order. Such being the case it is apparent that in a woolen goods brokerage business (where commissions are received from the mills only as the goods are delivered) it is a matter of some difficulty to keep track of orders as to whether they have been filled or not and whether all commissions due have been paid. The system





outlined herein was installed by the writer with a brokerage firm who handle the accounts of between 20 and 30 mills, and after an extended trial has been found to work admirably, being much simpler and more effective, while requiring much less labor than the cumbersome system previously in use.

The chief feature of this system lies in the order blank, copy of which is given herewith. It is preferable that this blank be about 8½x11 inches, so that the carbon copy of same will conform to a standard size binder. It will be noted that the space for the written details of the order occupies the upper portion of the sheet (the lower portion may be utilized for printed instructions, advertising, etc.), the object of this being to reserve the lower portion of the carbon copy for keeping track of the deliveries, etc. For the carbon copy, a plain sheet is used, punched for sectional post binder, ruled as shown herewith with columns for date of shipment, styles, amount of invoice and date commission is paid. All orders as taken by the salesmen are sent in to the house, who then forwards them to the respective mills, using the order blank with carbon copy beforementioned. The carbon copies are then filed in a "sectional post binder," which has divisions indexed for the different mills, all the orders for each mill being filed

ORDER

JOHN DOE & COMPANY

Louisville, Ky. January 15th 1905

Messrs Bonnybrook Woolen Mills Co.

Gentlemen: Please enter the following order: New York, N.Y.

| Style | Pieces | Yards | Grade | Price | Delivery, Remarks, etc. |
|---|---|---|---|---|---|
| 165/2 | 5 | | 6/4 "O.B. Cass" | "$1.50 | Sample pieces to be delivered March; balance |
| 167/5 | 5 | | " | " | April and May. Send 4 sheets of range |
| 172/4 | 5 | | " | " | samples at once. |
| 173/1 | 5 | | " | " | |

TERMS:- 7% four months or 10% ten days.

Sold To Excelsior Clothing Mfg. Co., Chicago, Ill.

Acknowledge promptly Direct to [illegible]

Send Duplicate Bills To Us

Yours Truly

John Doe & Co.

| Date Delivered | | Invoice | | | Date Paid | |
|---|---|---|---|---|---|---|
| Mch. | 8 | | | | Apr | 5 |
| | 23 | | | | 63 | " |
| Apr | 12 | | | | 17 75 | May 4 |
| | 20 | | | | 121 50 | " |
| May | 5 | 1 | | | 178 50 | June 3 |
| | 18 | | 1/5 | | 240 75 | " |
| | 30 | 1/5 | 1/5 | 1/5 | 117 37 | " |

alphabetically as regards the parties from whom the order was taken. It frequently happens that the same parties will place a number of different orders during the course of a season, and all such orders for any one mill will thus be together in the binder.

As the goods are delivered, it is customary for the mill to send to the brokerage house a copy of the invoice from which (upon the carbon copy of the original order) a record is made of the date, number of pieces of each style and amount of invoice. When the mill remits commissions, the date is entered in the column provided for that purpose.

By the use of this system the brokerage house can determine at any time the amount unfilled on any order, and whether commission has been received upon all goods delivered. If all goods have not been delivered within the time of delivery specified in the original order, the mill can then be written to for information as to why the order has not been filled—it frequently happening that the goods have been delivered but the mill through oversight has neglected to send duplicate bill or credit the commission.—*(Alex. J. Conen.)*



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## (315) BROKERAGE BOOK-KEEPING.

The problem of book-keeping in the future contract brokerage business requires a system of its own because of the peculiar nature of the business. It is not like any other business where something is bought and sold for cash or on credit. It is simply dealing in future contracts that have no immediate value, unless the market price should fluctuate one way or the other, during the time that the contract remains open. The brokers, in buying and selling future contracts for their customers, simply agree to receive or deliver, a certain amount of the commodity, when necessary, at a price agreed upon, on an understood date; according to the rules of the various exchanges where the contract was made.

The commodity markets are always more or less active, and the values of the open contracts are constantly changing. It is to take care of that value and not the value of the commodity, that the book-keeper is most concerned with. It is a peculiar, precarious value; that requests a peculiar system of book-keeping, which none but the very best of book-keepers can hope to take care of. It really requires a double set of double entry books; one set for the customers' accounts, and the other set for the other brokers' accounts. They both start off together and keep getting wider and wider apart and more and more complicated, until the option runs out and every contract is closed out or settled. Then the books should show that the difference between the amounts received and paid to the other brokers is the same as the amounts charged and credited to the customers less the commissions. To do that requires constant care and every possible safeguard that can be resorted to because the amounts received and paid to the other brokers are not the amounts charged and credited to the customers. One represents the settlements made to cover the fluctuations of the markets, and the other is the actual profit or loss secured. They are entirely different from each other, as to individual amounts, and must be kept separate and distinct; but in the aggregate the difference between both sides of each set must be the same.

It is absolutely necessary in the future contract brokerage business, to keep everything done in each option entirely separate and distinct from every other option, if not, serious trouble is sure to ensue.

The following is an illustration of how the books are kept in one of the big progressive international brokerage houses in New York City. The cotton, grain and coffee brokerage accounts are handled practically the same; and while this system was taken from the cotton department, it will be found after a little thought to be admirably adapted to all three, as it contains several ingenious labor saving methods.

The books required are, an order book, two option sheets fr each option, a contract ledger for the other brokers' accounts, and one for the customers' accounts, a cash settlement book, a cash book, an ordinary journal, and a general ledger.

OPTION SHEETS

Name of Option_____

New York, _____ 190 ____

| No of Bales | Bought For Account of | Price | Points not $ | | No of Bales | Sold For Account of | Price | Points not $ | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
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Write up a separate sheet for each option for the customers' account from the order book and extend the amounts, in points, not dollars; viz.: the price times the number of contracts. Write up another separate option sheet the same way, for the other brokers' contract accounts, from the signed contracts as they come over from the exchange; but use the broker's name instead of the customer's name. Both sheets should agree in the total number of contracts and total number of points. Then they are ready to be posted to their respective accounts. If every item is posted correctly and the totals crossed and posted to a separate account for each option, a trial balance can be taken off with very little work whenever it is wanted.

BROKERS OPEN CONTRACT LEDGER

In Account with _____

| Date Bought | Price Bought | Rnp Names | Date Sold | Price Sold | Rnp Names | Cash Paid | Cash Received | |
|---|---|---|---|---|---|---|---|---|
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As it is necessary to maintain the identity of each contract all through the contract ledger, it is necessary to write the price once for each contract bought or sold. For instance; if the option sheet shows that ten contracts have been bought at one price for the same account, that price must be written in the ledgers ten times, using ten lines. Because, they may be settled in several lots, at several prices and at different times. If the highest prices are entered first, it will be found that they settle against each other and leave only the last few entries made, as the only contracts still open,





which is a decided advantage over all other methods, because it is possible to tell at a glance just how each account stands on open contracts.

The brokers' contract ledgers are ruled quite different from the customers' contract ledgers, see illustration, because the cash settlements between brokers should be carried alongside of the prices to show which contracts have been settled for. It is therefore convenient to carry only one option on a page, while each broker requires an account for every open option. The customers' contract ledger is merely a record of when all the contracts were bought and sold and which contract was settled against the other. It does not show any money and it is therefore quite handy to have six accounts on each side of the page, which means one account for each month or option. Loose leaf ledgers cannot be too strongly recommended for this work because it means many inactive accounts and requires plenty of room.

New York, _____ 190_

STATEMENT OF PURCHASES AND SALES

____Bales of _____ Cotton by

for Account of M _____

| Date | Bales | Price | Bought Points | Sold Points | Difference Points | Loss $ | Gain $ | Commission $ | | Net Loss $ | | Net Profit $ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |
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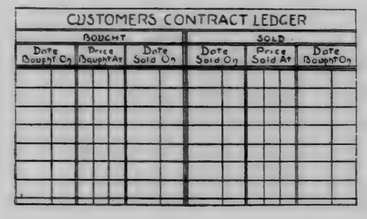
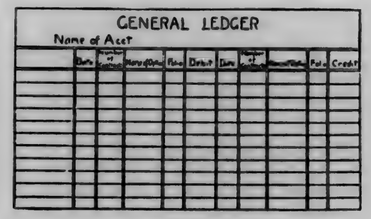
When contracts are closed out, for customer, a statement of purchase and sale, as per illustration, should be rendered. They should be made up in a book for each option, five to a page and perforated; with every other page made permanent and ruled to carry the figures made by a carbon sheet placed under each statement. That saves all the work of rewriting the transactions and gives original figures all through; avoiding great possibilities for making errors. The money columns should be footed and carried forward to the end of the month. Then the total of the loss column should be credited and the total of the profit column should be debited to that option account in the general ledger, and the total of the commission column credited to the commission account. To prove the footings in the five columns of this book, add the loss, commission and net profit together; they should equal the sum total of the gain and net loss columns. The net loss or net profit on each statement should be charged or credited to the customer's account in the general ledger, then check the transactions with the customer's contract account and the margin cards. The margin clerk should then erase those transactions. It is simply impossible for an error to escape in this way.


CUSTOMERS CONTRACT LEDGER

| BOUGHT | | | SOLD | | |
|---|---|---|---|---|---|
| Date Bought On | Price Bought At | Date Sold On | Date Sold On | Price Sold At | Date Bought On |
| | | | | | |


GENERAL LEDGER

Name of Acct

| Date | No. of Contract | Name of Option | Price | Debit | Date | No. of Contract | Name of Option | Price | Credit |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Nothing should appear in the general ledger but actual money transactions. Each customer should have an account showing the number of contracts, the name of the option, the number of the statement of purchase and sale, the amount made or lost and the money paid or received. Each option should have a separate account showing the total settlements made during the month, between the brokers, on each option, which is the total of the cash settlement book. And the total amount charged and credited to the customers during the month less commission, which is the total of the loss and gain columns in the statement books. All the option accounts should balance as the option runs out or when every contract is settled. Serious difficulty may be encountered in doing so, unless all the options are balanced at least once a month by closing out on paper all the open contracts for the customers and the brokers, and making them agree with all the cash settlements that have passed through the books.

Margin cards are very simple and only require to be ruled with a column for the date of each transaction, the number of open contracts, and their prices; for each option. At the top have a space for the name of the account, the ledger balance and the net credit or margin balance. The margin clerk is the one to determine for the customers which contract to settle against the other, as he should have a complete record on his cards, written from the option sheets, of all the open contracts for each account. In doing so he should write them on slips of paper so the statements of purchase and sale can be made out correctly from them. All of that work should be done in pencil because a permanent record is not required and frequent changes are necessary.

The cash settlement book referred to is a permanent record of all the settlements made between the brokers through the clearing house. It is ruled with a column for the name of the broker, number of contracts and a column for each month's option. The total of each column for each day should be written in a summary in the back of the book, using a page for each month's business. And in the column for the broker's name write the date of each day's set of totals. The totals of the summary columns should be posted at the end of each month to the proper option account in the general ledger.

The cash book should be ruled with a column for the date, the name of the account, the total of the day's clearing house settlements, the clear-





ing house margins, the broker's margins, and the last column for the various amounts received and paid for all other accounts. Both sides should be ruled the same and it will balance just like an ordinary cash book. It saves an immense amount of work because only the items in the last column need be posted as they occur, and only the totals of the other columns once a month.

This system was designed to control the transactions of one of the very largest houses, doing an immense amount of business in all the markets of the world; and was found to be absolutely reliable in every way and to have saved an immense amount of work.—*H. G. Butler.*

### (316) "Interest by a Wall Street Expert."

Stock Exchange houses render statements of accounts at least once a month, so the customers can see for themselves just what has been charged and credited to them during the month and expect every one of them to be verified. If no comment is made upon them or if no changes are requested to be made, the brokers take it for granted that they are correct, but that is not always the case. A great many customers simply glance at their statements and never think of checking them. They depend entirely upon the broker to see that they are correct. But when brokers never depend upon each other, it would seem important that the customers should check every item the same as the brokers do. No matter how careful the book-keepers are, serious errors are bound to occur, and if they are not found by the customer they may never be adjusted. When brokers receive a statement from another house, their book-keepers check every detail and see that all errors are adjusted without delay.

All the reports, the notices of debits or credits, and the dividend notices, should be filed and checked with the statement when it is received and the extension of each item verified. Then check the interest on each item. A great many dislike to figure interest because they look upon it as a hardship, but if they devote a little time and thought to the explanation herewith, interest will lose all of its terrors, and when they discover a few of the errors that are constantly occurring they will look upon it as a very pleasant pastime and are quite sure to find it a very profitable one.

Interest is usually figured from the date of each transaction to the last days of the month, on both debit and credit sides at six per cent. But no matter how the time is figured, the following method will take care of it. It is all figured at six per cent because it is the easiest rate to figure, and in a busy house there is so much to figure, it cannot all be done in one day or several days. And it is impossible to determine in advance what rate to charge the customers because the brokers cannot tell themselves how much money has cost them until about the last day of the month. Then the difference between the interest on both sides of the statements is adjusted by dividing the amount by six which reduces it all to one per cent and multiplying by the rate determined upon.

The rule of this method is to simply divide the number of days by six, the rate, multiply the result by the principal and point off three places from the right. Cents in the principal are never used when brokers figure interest. This rule is a modification of the one laid down in the school books, but as comparisons are odious we will avoid them. The why and the wherefore can be safely taken for granted because it is impossible to prove that it is wrong. The author figures as much if not more interest than anybody else in Wall Street, and after years of diligent search he cannot find a better method. Let us try a few examples by way of illustration. The author seldom uses all the figures used here because he is compelled by sheer necessity to figure most of his interest mentally and anybody else can do it the same way after very little practice. Take $42,726 for 30 days. 30÷6=5, 5×42726=213630; result $213.63. Take the same amount for six days: 6÷6=1 1×42726=$42.726. Don't figure it. Simply point off three places. Could anything be easier? Take three days, 3 is one-half of 6, half of the principal, 42726 is 21.363, point off three places. Figuring examples like these are unnecessary even to a novice. Every other number of days will look just as easy after a little practice. But in some there is a fraction, 1/6 or 1/3, which may cause some people to use a pencil, but don't let it bother anybody. Just think of what a simple proposition this method makes of most of your interest and how to control the fraction will dawn upon you naturally. Study the following for a little while and the fraction will be as easy as the rest. The figures 7—13—19—25—31 for the number of days will give 1/6 more than a whole number. Multiply by the whole number and add 1/6 of the principal to it. Example, 42726 for 19 days. 19÷6=3 1/6. 3×42726=128178. 1/6 of 42726=7121, both together give 135299. Do it this way:

42726
3.6
---
7121
128178
---
135299 result $135.30

The figures 8—14—20—26 give 1/3 more than a whole number. Figure the same way, only instead of dividing the principal by 6 for 1/6, divide it by 3 for 1/3 and add it to the result of multiplying the principal by the whole number.

Here is the only difficult part of the method to explain. That is, if there is anything difficult about it. When you have the following number of days, 10—16—22—28, if you divide by 6 you have the fraction 2/3. That looks difficult; but it isn't. When the number of days are 11—17—23—29 you get the fraction 5/6. That looks more difficult; but it isn't. Here's how. 16÷6=2 2/3, but instead of doing that add 2 days or 1/3 of 6 to 16, which gives 18. 18÷6=3. Multiply the principal by 3 and subtract the 1/3 which you added, point off three places, and you have the result. Do it like this:





42726
3.3
---
128178
14242
---
113.936 result $113.94

When the fraction is 5/6, add one day or 1/6, multiply the principal by the whole number you get and subtract 1/6 of the principal.

The old adage reads, "Practice makes perfect," but very little practice with the foregoing means magic. Many men marvel at a fresh bank clerk approximating interest. They can do it mentally and get so near the correct figures that some people think they are wonderful. Don't wonder any more. Practice this method, master its possibilities and you can go them one better by figuring interest exactly in your head without the slightest effort.—(H. G. Butler.)

## (317) Stock Brokerage Book-Keeping.

In the stock brokerage business where everything is done instantly, the books must be kept in such shape that all desired information can be obtained almost at a glance. Values fluctuate too fast and are too important to allow any time to figure an account during market hours. The book-keepers never know in advance what they may be called upon to do, because the amount of work they will have to execute depends entirely upon the activity of the stock market, and they must be prepared at all times for any emergency. All the work of each day's business must be done, and the books balanced and made ready for the next day before they leave at night, which very often means midnight.

In an office where they handle a very large volume of business, the system of book-keeping must be simple, because, there is no time for anything else. It must be concise because the information desired must be easily obtained. It must be elastic, because, the volume of business is liable at any time to be greater than it ever was; and at times it will fall away to almost nothing. And at the same time it must offer every possible safeguard against errors.

The method herein described has been installed in several of the big progressive Wall Street houses, and experience has proved it to be all that is to be desired.

The books required are eight in number, and are named as follows: Order book, purchase and sales book, clearing house blotter, ex-clearing house blotter, ledger, stock record, margin book, and trial balance.

Order Book (Form 1).—Enter the orders as they are received by writing in the number of shares, the name of the stock, the price and the customer's name, while telephoning the order over to the exchange. When the order is executed and reported back from the exchange, write it on plain perforated pad with a carbon sheet under first sheet to make two copies. Give the original to the customer, fill out the other columns of the order book from

Order Book. SELL

"Buy" side ruled the same.

| Broker | Quantity | Article | Price | Account of | Quantity | Prices | Remarks. |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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the copy, and pass it to the purchase and sales clerk. In the order book you will then have a complete record of every order received, showing which were not executed, who they were bought and sold for, and the names of the brokers they were bought from or sold to. This book also ought to show all cancellations and changes in the price limit or conditions, which should be done in the price column next to the customer's name.

PURCHASE & SALES BOOK.

PURCHASES. "Sales" side ruled the same

| | | Of whom purchased | Shares | Description | Price | Time | For whose Acct | Received | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Purchase and Sales (Form 2).—In this book enter all orders after they are executed from the copy memo made by the order clerk. In some houses, particularly a busy one, it is better to have a separate book for clearing house stocks and one for ex-clearing house stocks, to facilitate the work; because all comparison and clearing house tickets should be made out from this book after the entries have been checked with the reports made out by the broker that executed them. The notices of purchase and sale which are mailed to the customer should be made out from this book, and checked back, but if typewritten notices are preferred it will be found more convenient to make them out from the copy of the order clerk's memorandum and checked with the purchase and sales book.

This book is a permanent record of all orders that have been executed.





STOCK BLOTTER.

| Folio | DELIVER to | Shares | Stock | Price | Amount | Comm | Int'r | Tax | Total Amount or Credit | Account | Numbers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | "Receive" side for debits ruled the same without Tax column. | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Clearing House Blotter (Form 3).—The clearing house blotter should be written up from purchase and sales book. The first money column shows the amount that was paid or received for each transaction and each item should be compared with the amount on the clearing house tickets. When all the clearing house tickets have been exchanged and checked and the stock balances to receive or deliver have been extended the totals should agree with the totals on the clearing house sheet, and the difference is the clearing house balance. Write the amount on the proper side, and both sides should agree.

When the clearing house sheet is closed extend the commissions, interest and tax in their proper columns, and put the net amount in the debit or credit column, the last column on each side. Enter the totals of the commission columns in the credit column and credit to commission account. Do the same with the tax column and credit tax account with it. Enter the difference between the interest columns on whichever side it belongs and charge or credit it to interest account. Extend the clearing house balance in the last column. Add up the debit and credit columns and they should agree. When it does agree, the clearing house blotter is ready to be posted in the ledger. Every item should be posted as it appears in the blotter except the clearing house balance, and the balance of stocks to receive or deliver. They should not be posted as they take care of themselves.

Ex-Clearing House Blotter (Form 3).—Enter bank balance on credit side last column.

Write the ex-clearing house blotter from the purchase and sales book, and fill in all the columns. When the names are received from the clearing house on stock balances to receive and deliver, write item in and extend the amounts to the last column. Stocks borrowed should be entered on the received side, and the amount in the last column and charged to stocks borrowed account. Stocks loaned should be entered the same way on the delivery side and credited to stocks loaned account, and when they are returned do just the opposite, but enter the interest in the interest column

and the amount without the interest in the last column. Money loaned should be entered on the receiving side and charged to cash loans account. Money borrowed should be entered on the delivery side and credited to the same account. When the loans are paid, treat them the same as stocks returned was, but, of course, enter them as cash loans. Enter money received from customers or stock delivered to customers on the delivery side using the last column for this amount and credit the customer's account with it. When money is paid to a customer or stocks are received from a customer, enter it on the received side and charge his account with it. Make a large check mark along side of each amount as it is paid for, so as to know which amounts to use when figuring how you stand on money.

At the close of business enter the totals of the commission, interest and tax accounts the same as was done in the clearing house blotter and the bank balance the check book shows on the received side, and the last column of both sides should agree. Everything is then ready to be posted to its proper account except the clearing house stock balances which take care of themselves.

In a progressive stock exchange house the journal and cash book have long since gone to join the old-fashioned words To and By, because they are entirely and absolutely unnecessary if the ex-blotter is used as it should be. A blotter can be made to do all the work of a journal or cash book and more, by simply journalizing all the miscellaneous transactions through the ex-clearing house blotter. The blotter should and will balance itself without any trouble whatsoever. Journals and cash books are only used to accomplish what the blotter has already done. All that is necessary is to put everything through the blotter, add it up and see that both sides agree. Posting from original entries is undoubtedly the simplest, safest and quickest way, and the less books you have to post from the better. You avoid rewriting every transaction and the possibility of making errors.

Ledger (Form 4).—The old-fashioned commercial ledger with its two columns was first used in Wall Street because none better was then known, and it is being used in a great many houses today for the same reason. The

LEDGER

| Date | Bought (Debit) | Sold (Credit) | Debit | Credit | Daily Balance Dr. Bal. | Daily Balance Cr. Bal. | Days | Dr. Int. | Cr. Int. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |





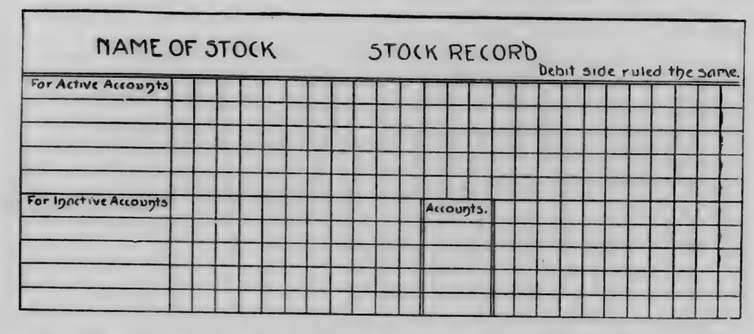
four-column ledger is so much better that there is no room for comparison. One was made for a warehouse merchant or manufacturer, the other was devised for a stock broker or a banker, and it exactly fills a longfelt want.

The illustration shown herein almost explains itself, still a few words may be devoted to it as it may save some the necessity of a margin book. To begin with it is much better to keep long and short accounts separate, because it is the simplest way. Never write debit and credit entries on the same line, as it may cause confusion. It is not necessary to carry the interest columns in the ledger, but they must be on the monthly statements as it does away with more than half of the interest figuring made necessary by the old-fashioned ledger, because it is only necessary to figure interest on the daily balance and not on each debit or credit item. Write the monthly statements up every day and extend the balances only when changes occur. Keep the sales of stocks checked against the purchases by making a check mark in pencil beside the number of shares, so you can tell which stocks are still on hand in each account, and if you keep the balance of each stock still open in the margin on the same line with the last entry on the debit side for that stock and rub out the previous balance, with every other entry checked, you can tell at a glance how many shares of each stock the account has open. And as you have the money balances extended you can figure the margin on the account without any loss of time and if the business is not very large, a margin book or a margin clerk is not absolutely necessary. Keep the columns for the number of shares added and the difference will prove whether your stock balances are correct or not. If the stocks are checked correctly in this manner there is absolutely no necessity for an open trades book, and it is by far the simplest, quickest and best way to keep the stock balances.

When the accounts are kept this way it shows all the information required at a glance, but with the old-fashioned ledger it would require some tedious figuring.

Personal and miscellaneous accounts do not require daily balances. For those accounts, the pages should be ruled the old-fashioned way, with two accounts to a page one along side the other.

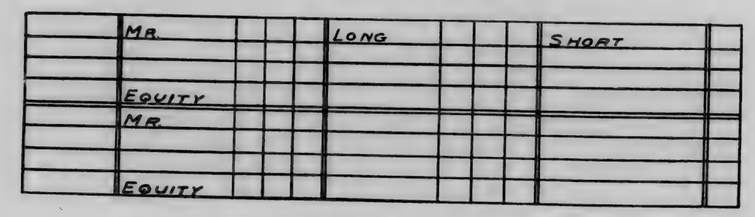
Stock Record Book (Form 5).—The stock record book is kept in order to tell how many shares of each stock the house is carrying or was carrying at any given time, for whose account the house was carrying them, and where they were kept. For instance, if stock is bought for an account the man's name and the number of shares should appear on the left-hand side of the book. The other side should show whether it was put in a loan, loaned to another broker or kept in the safe deposit vault. The book is ruled with a column for names and one for every day in the month, for active accounts; and less columns for small accounts. The name of the stock should be written at the head of the page. The best way to conduct it is to use a large plain piece of paper. Keep each stock separate, and when a transaction is made write it in pencil and take every item off the blotters.




When you make every stock balance for that day, make your changes in the book by bringing your balances forward to the next column and put the date at the top. When you make all the changes, see that the last column used adds up the same on both sides of the book.

Margin Book (Form 6).—The margin book should be written with a pencil on heavy paper, because frequent erasures are necessary. The best way is to use a loose leaf holder with index pages. Make all changes from the purchase and sales book, and when anything is done for a short account, mark it so in the purchase and sales book. Then write the number of shares name of the stock and the price. When the market changes or whenever the occasion requires, figure from the prices in the margin book to the present market, change the equity, rub out the old prices and put in new ones. Always watch the ex-blotters for any cash items, and as often as possible check your stocks with the ledger account and extend the values at the market price and subtract the ledger balance to prove that the equity in the margin book is correct.

Daily Trial Balance.—If the business is very large, the trial balance should be taken off every day. To do so use sheets of paper ruled with four money columns and room for names. Take the items from the blotters. Use the first two columns for the debit and credit items, keeping all the items for each account together. When you have taken everything off extend the balance to the other columns, put in the cash balances, and both sides should add up the same which gives a trial balance on the day's business.








Use a trial balance book with short leaves so it will not be necessary to write all the names each time. Extend the balances in the trial balance book as you go along from day to day, and see that they add up the same. Whenever it is convenient check the balances in the trial balance book with the ledger, then you are absolutely certain that the ledger is correct.—*H. G. Butler.*

### (318) BUILDERS' ACCOUNTING.

See Contractors.

### (319) BUILDING ACCOUNT.

An asset account. The relation to this account of dilapidations, depreciations, maintenance, repairs, renewals, etc., will be considered under the head of "Depreciation."

### (320) BUILDING AND LOAN ASSOCIATIONS.

(Organization and accounting.)

A Standard Plan of Oragnization.—Care should be taken in the organization of a building and loan association to follow the statutes of the state where organized and to so formulate the by-laws and contracts of the association as to fully cover the plans proposed for doing business. The plan for doing business should in all particulars strictly accord with the state laws. Accordingly no step should be taken without competent legal advice.

The management of a building and loan association is usually composed as follows: Board of directors, president, vice-president, secretary, treasurer, attorney and various committees, such as auditing, executive and loan.

The board of directors should pass upon all matters of business, approve all loans and direct the policies of the association. It is customary, however, to delegate some of the functions of the board of directors to appropriate committees, the action taken in committee being reported to and passed upon by the board.

The president should preside at all meetings of the directors and may be ex-officio a member of various committees, should sign all contracts in behalf of the association, make all releases as to mortgages, and sign all warrants drawn upon the treasurer and all vouchers authorizing cross or journal entries. The vice president should act in the absence of the president.

The secretary should preserve a record of the proceedings of all meetings of directors and stockholders, have charge of all books and records of the association, have charge of the corporation seal and attest the same when affixed to any document, should sign all vouchers and warrants, and in general attend to the active promotion of the business. Some associations also make the secretary custodian of all securities, while in other cases the treasurer assumes this duty. It is preferable that all papers and securities be in the vault of the association and unless the secretary occupies the same office with the association it is preferable that the secretary have charge.

The treasurer has charge of the funds of the association, receiving them as turned over by the secretary and paying them out upon the warrant of the association signed by the president and secretary. In many cases, however, the treasurer is a banker and the secretary deposits the funds to the credit of the treasurer in the bank, and the bank pays warrants when presented. The treasurer should at the end of each month report as to funds received, warrants paid, and balances on hand. Where the office of the treasurer is not conveniently situated, it is often troublesome to present warrants to him for signature but it would be an additional safeguard to have warrants countersigned by the treasurer before being payable. The custom followed by some associations of issuing a warrant to be taken up by the treasurer's check is objectionable.

The attorney should pass upon all titles, loan papers and contracts, giving his written opinions, and should counsel in all legal proceedings.

The organization of the office force depends upon the size of the association, and as a general rule the secretary with the assistance of a stenographer and a book-keeper is able to take care of the business.

### ACCOUNTING METHOD.

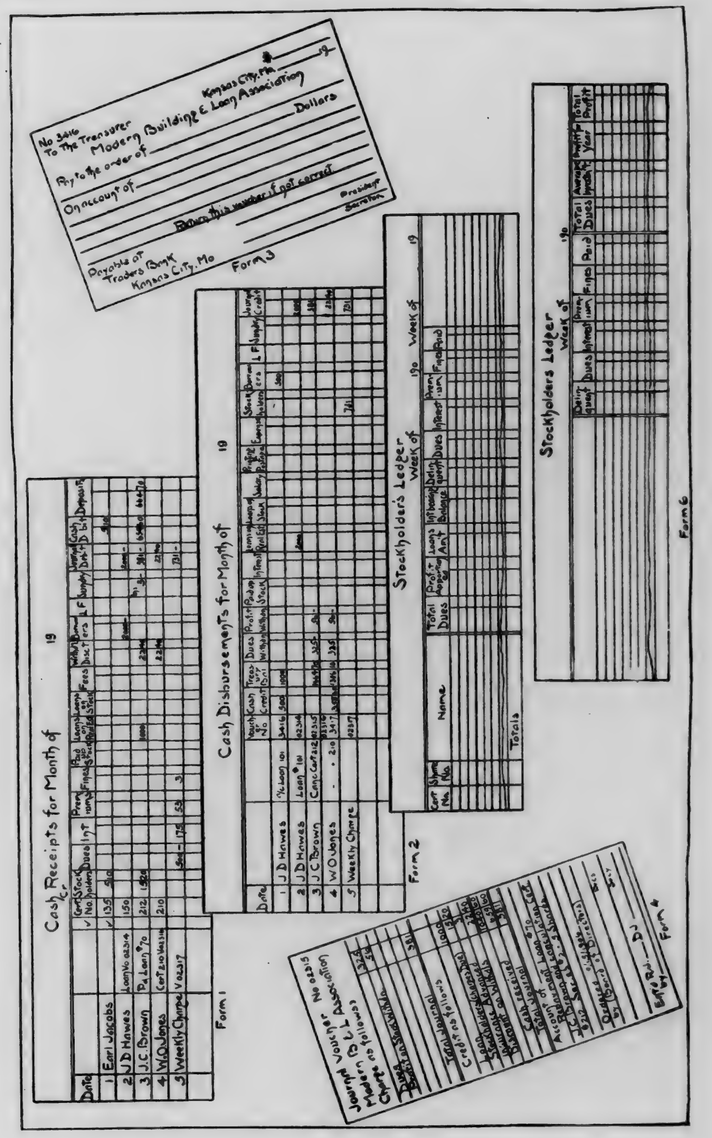
The books required for a building and loan association are as follows: Cash journal, general ledger, stockholders' ledger, stock and transfer register, loan record and minute book. In addition to these general books there may be provided auxiliary records as deemed advantageous, such as insurance register, real estate and rental register, paid up stock record or ledger, balance books and special indexes.

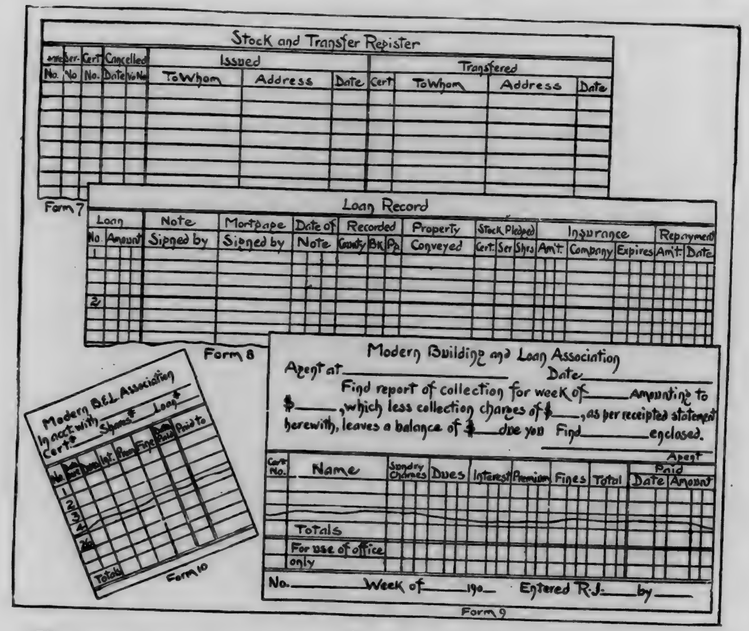
The cash book submitted herewith is a combination cash book and journal in columnar form and is divided into two books, viz.: Receiving book, Form 1, and disbursing book, Form 2. These forms could be bound into one book, but having the two books is more convenient as the receiving book may be placed conveniently for entering receipts without interfering with the use of the disbursement section; in addition to this, the receipts of a building and loan association generally occupy several times the space required for recording disbursements. The arrangement of the cash columns is such that at all times the balances in the drawer and in the bank may be shown. The journal columns provide for showing totals of all entries other than cash, and furnish an automatic check on the balancing of journal entries, and at the same time enable the independent balancing of each sheet of the cash journal or journals.

The forms submitted are intended for use with tabular form of stockholders' ledger (Form 6) and may be changed by providing columns for other accounts, or by dropping some of the columns not often used and using the "Sundry" column instead. In Form 1, receipts, the principal function of the columns, "Dues," "Interest," "Premium" and "Fines," is to provide for entering weekly charges; these could be entered in "Sundry" column, and space saved, though their use assembles the total of the monthly charges and necessitates only one posting per month for each account.










The forms show illustrations of the method of entering several transactions, to-wit: Form 2 shows the entry of a new loan, this method always showing total of loans in force in loan account, while in borrowers' account the balance due to borrowers on account of loans not fully closed is shown; Form 3 shows the entry of repayment of a loan, the pledged stock being canceled and applied in part payment; Form 4 shows entry of the withdrawal or cancellation of stock; Form 5 shows entry of weekly charges, illustrating how dues, interest, premium and fines receive credit for the amounts due from stockholders and stockholders' account is charged therewith, so that stockholders' account, being credited with payments received, always shows the amount due from stockholders on account of payments; Form 1, receipts, shows entry of a weekly payment; and Form 1, disbursements, shows entry of partial payment to a borrower on account of his loan.

In case the individual form of stockholders' ledger (Form 5) is used, and only payments of dues, interest, premium and fines as made are carried to the general ledger, the columns "Stockholders" can be dropped, and payments distributed in proper columns.

No disbursement should be made except by warrant or voucher signed by the president and secretary of the association, and, if so desired, countersigned by the treasurer. For this purpose Form 3 is submitted, being a





voucher check. Vouchers should be bound in books, being perforated so as to be easily detached; each voucher should be accompanied by a duplicate form having the same number, so that by using a carbon an exact copy of the written portions of the vouchers may be made, avoiding the necessity of a stub, and at the same time avoiding the possibilities of errors which often occur when a stub is used. The duplicate form should remain in the book, providing a permanent record and a posting medium for entry upon the cash journal. Petty expenditures should be taken care of either by a petty cash system, or by means of debit slips which are to be reported to the board for allowance and voucher at the end of each month.

Many book-keepers take issue when such a thing is suggested, but no journal entry should be made excepting upon a voucher signed by the president and secretary, showing date and authority for the same. These vouchers should also be bound and should form a permanent record of the office. In this connnection Form 4 is submitted. This form has been filled out to illustrate the procedure in case of repayment of a loan, the stock being canceled and applied in part payment, see Entry 3 on cash journals.

Deposit slips should be bound with duplicates, and carbon copies made of each deposit. Each item deposited should be identified so that deposits may be checked with receipts as entered on the cash journal, and the duplicate slip should be kept in the office as a permanent record.

The general ledger may be any form of double entry ledger, and should be sectionalized so that assets, liabilities, loss and gains will be found each in its separate section. By doing this a preliminary statement of conditions can be taken direct from the trial balance by footing each section separately and finding the difference between assets and liabilities, which will agree with the difference between losses and gains and will show the surplus or net gain of the association if prospering or vice versa. All accounts of assets and liabilities should be balanced at the end of each fiscal period, while accounts of profit and loss should be carried gross. Should it be desired to show the various totals of loss and gain for the fiscal year, bring down double footings, one showing total for period and the other, total to date. If it is desired to carry the ordinary form of loss and gain account it can be done by providing a memorandum account, or by carrying such an account on some auxiliary book, such as the balance book.

Accounts with borrowers for loans in process of closing and for insurance, taxes and other advances made by the association, and with holders of paid-up stock may be carried in petty ledgers, or may be carried in sections in the back part of the general ledger, these sections not entering into the trial balance, but balancing with the controlling accounts, "borrowers," "advances to borrowers," and "paid up stock."

The general ledger accounts usually opened are as follows:

ASSETS.

Cash.
Treasurer.
Loans on stock.
Real estate.
Furniture and fixtures.
Stockholders.
Advances to borrowers.

LOSS.

Salary.
Printing and postage.
Rent.
Expense.
Interest paid.
Profit distributed.
Sundry losses.

LIABILITIES.

Dues.
Paid up stock.
Due borrowers.
Borrowed money.
Profit apportioned.

GAINS.

Interest.
Premium.
Fines.
Fees.
Discount on withdrawals.
Sundry gains.

The stockholders' ledger may be in tabular form or may provide for an individual account with each shareholder.

The tabular ledger, Form 6, has the advantage of condensing the accounts, of separating them by series so that the totals of each series may be easily and quickly found, and of providing for proof of the work in the manner of the self-balancing type of ledgers. From an accounting standpoint the general ledger should disclose the true condition of the association, and in order that this may be done the totals of weekly charges accruing to the association must be carried to the general ledger. The tabular form of ledger provides the most practical method for assembling the total charges in form to be carried to the general ledger. From the proposals submitted it is not certain whether interest is to be paid weekly or once every three months and the form submitted provides for the weekly charges of interest. If interest is payable quarterly interest columns may be omitted except in the first week of the quarter.

In the use of Form 6 weekly charges should be brought down and totals entered upon the cash journal, charging stockholders and crediting dues, interest, premium and fines. By the use of short leaves accounts need not be transferred oftener than once every three or six months.

The individual form of stockholders' ledger, Form 5, has the advantage of showing the entire account of a stockholder at one place, and providing for taking care of sundry charges or advances made on account of borrowers, and if the loose leaf system of binder is used the accounts may be arranged in most convenient form for posting. The disadvantages are that without the use of an auxiliary book or other means of assembling the charges for entry upon the general ledger it is impossible to assemble them. In fact nearly all associations using this form of ledger do not carry charges to the general ledger, but credits only, making up a statement of delinquencies and advances whenever it is desired to report upon the condition of the association. This is objectionable for the reasons before given, also for the reason that there is no check upon the statement of delinquencies and advances, and for the further reason that the stockholders' account when carried upon





the general ledger forms a controlling account for the stockholders' ledger, serving to prevent mistakes and to furnish a check upon collections.

The tabular form provides for recording total of dues, average investment, profit distributed for fiscal year and total profit, which in the individual form a balance sheet or other form is necessary for recording this information and in making distribution of profit.

The stock and transfer ledger, Form 7, is used, as its name indicates, to record issues, cancellations and transfers of stock. On account of the size of certificate required to fully set out the contract, and in order to save writing so many certificates as would be required if one were written for each share of stock, it is customary to write one certificate only for the full number of shares issued to a shareholder, a stub being kept on which to record data in regard to issue and cancellation or transfers. The objection to this method is that many shareholders cancel or transfer only a part of their shares, which necessitates the canceling of the original certificate and the writing of new certificates. The form submitted provides for the numbering of each share of stock issued, for recording the series number and the certificate number under which the share is issued, and upon the cancellation or transfer of a part of the shares, record is made of the number of the new certificate or certificates, in this manner always showing at the number of the share full particulars in regard thereto. Another feature is that the record of cancellation of the share of stock immediately follows the numbers of share, series and certificate, so that without looking further it will appear whether the share is still in force. Space can be provided for as many transfers as may seem desirable, using double lines for each share if so desired. In connection with this form the certificate should provide for entering the share numbers in addition to certificate and series numbers and numbers of shares.

The loan record, Form 8, provides for a full record of essential features of each loan. A document envelope should be provided for each loan and all papers connected with a loan filed in its envelope. The envelope should provide for writing name, number and other data upon the outside, and may be filed alphabetically or numerically.

A paid-up stock register may be provided, but it is preferable to use a petty ledger or to open accounts in the back of the general ledger, for the reason that this method will provide for recording in one place all the data in regard to each account. A stub or duplicate sheet should be used for the purpose of keeping a record of issue and transfer of certificates, and canceled certificates should either be attached to stubs or bound together in numerical order.

An insurance expiration register is a convenience and in large associations a necessity. Any regulation form may be used.

In case it is desired to establish branch offices for the purpose of making collections, blank reports should be provided for the use of the agent. The reports should be filled out in the office of the association and sent to the

agent so that he has only to record the collections made by him. A convenient method is to provide triplicate forms, tabbed so as to register, and by using carbons have three copies made by the typewriter. Retain one form in the office and send two to the agent. The original is returned by the agent with his report of collections and the duplicate having been filled out in the same manner as the original is retained by the agent and filed in a binder for the purpose of reference. When the full payment is made, it is only necessary to enter the amount in"Paid" column, and when a partial payment is made, the agent should write above the light line the exact distribution of the payment as the same was entered upon the pass book. When original report is received in the home office, rule out amounts not paid and foot the remaining amounts in charges columns bringing totals down on lines for "use of office;" the sum of these totals should equal the amount paid. Number the report and enter collection in one item or total under name of agency and give report number. Take original together with triplicate copy of report, post collections upon stockholders' ledger, at the same time noting upon triplicate copy any changes necessary in order to show the collections due for the following week. After this has been done the triplicate is ready for the use of the typewriter in making statement for the collector, and the original should be bound in a loose leaf binder in numerical order where it can be referred to at any time. Form 9.

This method saves the time of the agent, keeps the matter of collections and charges directly under control of the home office, enables the agent to keep check on the correctness of the home office accounts, saves the time required for copying reports on cash journal in extenso, prevents errors likely to occur in copying, and preserves the original record in convenient form for inspection and reference.

Form 10 shows a page of the shareholder's pass book, and provides for showing due date, payment made and date and receipt of agent or officer taking same. Each page should provide for recording one-half year's payments.

Loans should be made only upon written application, for which purpose the association should provide printed forms. There are so many good forms in common use that it is hardly necessary to submit one here, but the following points should be covered: name of borrower and wife, if any, address, occupation, financial responsibility, amount desired, purpose for which desired, description of real estate and improvements, valuation placed thereon by borrower, statement as to title, liens, taxes and judgments. Applicant should make oath to his statements. Provision should also be made for report of appraisement committee, record of action by board of directors, and record of attorney's approval of title. The outside of application for filing should provide for number, amount of loan, name of borrower, date of approval and list of papers necessary, for checking as papers are completed and filed. It is also a good idea to have upon the application a statement showing disbursements made in connection with the closing of the loan, with a receipt





to be signed by the borrower acknowledging full payment of the loan as shown by the statement. This sometimes saves trouble.

The title and all papers connected with the loan should be passed upon by the attorney of the association, the abstract should be brought down to show recording of association's mortgage, and the final certificate of the attorney should be made as to title conveyed by the mortgage. *L. U. Crawford.*

### (321) Building and Loan Association Tax Records.

In the records of building and loan associations making loans in several states and covering widespread territory, proper information on taxes, paid or delinquent, on properties under mortgage, is an item that requires careful handling and accurate accounting.

To answer these requirements and attain perfection in compiling such records, a convenient system is found in the "tax record cards." Such a

| COUNTY | | LOAN NO. |
|---|---|---|
| OWNER | | TOWN |
| | | |
| LOT NO. | BLOCK | ADDITION AND TOWN |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| DATE | DELINQUENT | | SOLD FOR TAXES | | | PAID | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | YEAR | AMOUNT | YEAR | DATE SOLD | AMOUNT | DATE | AMOUNT | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| COUNTY SEAT | | | STATE | | |
|---|---|---|---|---|---|
| YEAR | LIST SENT | LIST RETURNED | FEES FOR CHECKING | | REMARKS |
| | | | AMOUNT | DATE PAID | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

method is simple in form and use. The face of the card carries the name of the owner and the description of the property, the county and state in which the property is located, heading the pasteboard. The number of the loan is also shown in a prominent place.

The back of the card provides for accurate records of delinquent taxes, showing the date of entry on the card. This data is taken from a tax list, compiled by the building and loan association, sent out to the county treasurers, checked up by them and returned to the compiler. This list for county officials is sent out annually or semi-annually as required and is the best check for the association on assessments of property on which it has loaned. If the county treasurer reports the taxes paid, such information may be entered on the borrower's record card, "All Taxes Paid, 19...," and date of such entry.

If the taxes are reported delinquent, full record is made on the back of the card, in the columns provided, and letters immediately despatched to the owner of the property.

Record for ten or eleven years may be kept on the same card without any of the hopeless tangle resulting from more complicated methods which are too often used. The tax record for every piece of property the association holds under mortgage will always be up to date. When loans are repaid the individual card is destroyed or filed in dead section.

The matter of filing these tax record cards is also of importance. The best system is to have a complete set of index cards, each representing a county in a certain state. This index card is divided into columns, providing for information and record of the association's compiled tax lists, when sent, when returned, fees for checking, the latter subdivided into "amount" and "date paid," and a special column for valuable "remarks." This "county index card" serves largely as a recapitulation for the division it covers. With "tax record cards," "county index cards" in place in a cabinet, a "state" subdivided index may be made, making it the work of but a moment to turn to state, county and description of property and full details on status of taxes of any piece of property in which the association is interested and in any locality covered by the index.—*Page Lawrence.*

Loan Records in Detail.—Where many loans are made that run for years, in trust companies, savings banks and building and loan associations, it often becomes necessary that a complete knowledge of the whole transaction, from the time the loan was made to the present date, be had, and in many cases the management of the company has changed since the loan was first made, or, as it often occurs, the property in question has changed hands a number of times and the loan has been transferred with the property. In such cases if a complete and detailed record of all transactions has not been kept and properly preserved, it is often very hard and sometimes very expensive to clean the matter up with entire satisfaction to the borrower and credit to the company.





Our system in brief is as follows: When application for loan is received receipt of same is acknowledged and advice given as to when the application will be passed upon by the Loan Committee, and a copy of the letter is attached to the application; letters of inquiry are then sent out, the copies of which are attached to the application, as their replies are when received. If the application is approved by the Loan Committee the applicant is so advised and request for abstract made and copy of the letter attached to application. When abstract is received, receipt of same is acknowledged and the abstract sent to attorney for examination and report, copy of these letters as well as attorney's report are also attached to application. It is well to state here that we make carbon copies of all letters, and each letter that is written in connection with any loan is placed with the application, and attached to same by means of a very large clip, sufficiently large to hold as many letters as may be necessary. These applications, with attached papers, are filed in large desk draws just the size of the application when laid flat; none of the copies are folded. The average desk draw will hold from ten to a dozen of these application papers, and same can be got at and withdrawn from the draw very easily. In this manner a desk with six or eight draws will accommodate about as many applications for loans as the average company will have pending at one time.

Any member of the Loan Committee may drop in at any time and seat himself at this desk and withdraw the applications that do not already bear his signature of approval, and have before him a full record and history of the application and applicant without one word of advice from the management of the company. The application will show for itself whether the loan is a good one, and he may approve or reject as may be proper.

If everything is satisfactory the papers are made out and mortgage, note, lien waiver, etc., are sent out for signature and completion and a copy of the letter of instructions to the agent regarding this particular loan is attached with the other papers. Copy of letter sent when proceeds of the loan are forwarded, as well as the letter received when the mortgage and other papers are returned, are also attached. If this closes up the matter the abstract, mortgage, note and insurance policies are placed in a filing envelope which is plainly marked, showing the number of the loan, amount, name of borrower, town, county and state, when mortgage, note, abstract and insurance policies were received, and unpaid taxes, if any there be; in fact a detail of everything contained in the package is plainly shown, and if at any time anything is removed from the package it is so marked, giving time and purpose of removal and to whom sent. (This marking is shown in a blank space by pencil and removed when the paper is returned.) Of course expiration of insurance policies are not shown as that is another matter, and kept by

special card system. This package is then placed in the vault files as same may be referred to often. The application with all papers attached is now taken from the draw and placed in a similar envelope to that used for the other papers, and so marked as to be easily identified with the other package. These are placed in fire-proof files or stored so as to be easily obtainable if necessary. They are not needed for reference very often but when they are needed they are needed very badly. Our system of filing is by towns, but by letter would be as good.

If at any time after filing the papers there should be any correspondence in regard to a loan, or a transfer made, copies of all letters in connection with it are placed in the file with the application.

Under the above system we can at any time place our hands on all papers pertaining to any particular loan, no matter whether the loan be ten days or ten years old, and we find it a great saving of time and annoyance, and in many cases of expense. Of course this system may be better adapted to business carried on by mail but we also find it very desirable in connection with our home business.—*D. D. Rowe.*

### (322) MATURING SHARES IN LOAN ASSOCIATIONS.

The date for maturity of shares in building and loan associations is susceptible of accurate calculation under exact and known conditions. The uncertain and fluctuating position of this desired period in actual practice is caused by the many varying idiosyncracies common to such organizations.

Before finally closing the books for the fiscal term, there should be an accounting made as to any interest due from the association on borrowed money and paid up stock, and expense items accrued but not paid, and allowance made for any losses which in the opinion of the management may be met with in realizing upon real estate or delinquent loans or otherwise.

After the books are balanced ready for closing, interest having been allowed to holders of paid-up stock, a profit and loss account should be made showing the profits on hand for distribution to the instalment stockholders. The next step in preparing for the distribution of profits is to find the average investment of each shareholder, or other basis upon which the distribution is to be made. The proposal simply states that apportionment of profits is to be made at the end of each year which, on account of the many methods or plans of making the distribution, leaves much to be desired in the way of information as to what has been proposed in this regard.

We presume it is intended that the profits apportioned shall be carried to the credit of the respective shares or certificates, though it is the custom of many associations not to credit the profits to the shareholders' accounts. The basis upon which the investment is to be calculated varies greatly between different associations. We will assume that the fine charged





for non-payment is intended to equate payments and for that reason will apportion profits as though all dues had been paid to date. It is the custom with many associations to include profits credited as a part of the investment and this would appear to be a proper method, but in the present instance the various series as they become older decrease in earning power by reason of the reduction in interest and premium charges, and it would work an injustice upon the younger series to allow the older series to share in their higher earnings on a compounding basis. Wherefore the basis for distribution will be the average dues for the fiscal year, letting the profit credited serve to equalize the difference in earning power.

The method of finding the average investment is as follows: Multiply the number of weeks run by the payment per week, deduct from that result one-half of the annual payment, the balance being the average. After finding the average on one share in a series it is only necessary to multiply by the number of shares held to find the stockholder's basis of distribution. Find the total of the average investment, divide into the undivided profit to find per cent of gain, multiply average for one share by per cent of gain to and profit apportioned per share, multiply profit apportioned per share by number of shares to find profit apportioned to the respective shareholders. To prove work bring down totals by series and perform operations with total shares of the series. There will probably be a small balance of undivided profit for the reason that fractional parts of a cent are dropped.

If it is desired to include profits credited in the average investment it is necessary to add the amounts thereof to the average investments as found under the above rule and proceed in the same manner.

After having proven the work and found the totals of profit distributed, bring down the various credits upon the stockholders' ledger for the respective stockholders' accounts, journalize and post totals to credit of "profit apportioned" in liability section and to the debt of "profit distributed" in loss section. By charging withdrawals of profit against "profit apportioned" account, that account will at all times give the total of profit standing to the credit of stockholders, while the account "profits distributed" will give the total of profits distributed or credited to stockholders. If it is desired to know the net profit to stockholders, find the difference between totals of profits distributed and discount on withdrawals.

If instead of paying interest on paid-up stock it is desired to credit the same, open an "interest on paid-up stock" account in the loss section and an account with paid-up interest in the liability section, crediting liability and debiting loss with interest earned and credited and debiting liability with interest withdrawn. If interest is to be paid annually or semi-annually charge the same when paid direct to "interest paid out" account in loss section. A convenient method of handling interest on paid-up stock is to make it payable at the end of the fiscal year, as by that method all accounts are adjusted to statement date at end of year and there is no necessity for

making adjustments for interest accrued and unpaid as would be the case if interest is paid on an annual or semi-annual basis, dating from date of issue.

At least once each year all pass books should be called in by an auditing committee and checked with the books of the association and the entire work of the year should be thoroughly audited. Many associations now employ public accountants to do this work and an audit of this kind is being found much more satisfactory than that of the ordinary committee. Even though the state provides for periodical examinations the yearly audit in which all pass books are at hand should not be neglected.—(L. U. Craw ford.)

### MATURING SHARES.

The time for maturity of shares in savings and loan associations is susceptible of accurate calculation under exact and known conditions. The value is, however, sometimes uncertain and fluctuating caused by conditions peculiar to such organizations.

What these are and how they affect the maturity period will not be considered, as the only object here is to illustrate how, under absolutely ideal circumstances, such a result may be accomplished.

Taking for example a $1 monthly payment on a $200 par value share, with a loaning rate of six per cent and no premium, required the time to maturity. Under these conditions the investor pays $1 monthly for each share taken, and the borrower pays $2 monthly for each $200 borrowed, that is, $1 for his share, payment (for each borrower in a loan association is also an investor), and $1 as monthly interest on his loan of $200. The method employed for the computation is assuming a time for the maturity of shares in the first series and proceeding exactly as in actual loan association accounting, carrying through all the subsequent serial operations to the assumed period for the maturity of shares in Series No. 1, at which time profits are apportioned, pro rata, to all shares to determine whether time assumed for the maturity of the shares is 138 months.

In this miniature association there are 210,842 shares, distributed among seventeen shareholders, comprising eight series with three shareholders in the first series and two each in the remaining series, divided into investors and borrowers, as explained. The operations are spread over a term of eleven and one-half years, but are so condensed by averaging that the accounting and tabulations are kept within a reasonable and comprehensible limit. In order to simplify the calculations, the time for instalment payments is considered as being made in the middle of the month, thus making the equated time of the payments one-half of the actual time. The arrangement in the number of shares held by the shareholders is such that the exact amounts available in each series are entirely and immediately loaned out.

Summary A shows the serial development, the investor's and borrower's accounting, the total dues and interest paid, and the amount of loans and





to whom made. At the end of the eleven and one-half years the total dues paid is a capital investment of $18,057.61 and the $9,856.57, paid as interest by borrowers on their loans, is a profit to be apportioned among the shareholders.

Summary B shows the serial and individual shareholder's apportionment, the equated time of each serial investment being reduced to its value for one month, making the total equated value of the actual capital, $18,057.61, which has been paid in instalments during stated intervals of eleven and one-half years, equivalent to $1,494,244.41 invested for one month. This equated capital sum divided into the profit, $9,856.57, gives a monthly rate of .00658, which, applied to each one's share of their equated capital investment, determines their profit, as is indicated in the "Profit Apportioned" column. The total values of the shares in the various series and the outstanding balances on the borrower's loans are shown in designated columns, following by a statement of resources and liabilities at the end of the assumed period.

The final table indicates the value of shares in the first series and shows that the instalment shares have attained their par value, conclusively proving that the assumed time for maturity was the correct one.

In order that there may be a satisfactory amount to loan at the beginning: A, an investor in 50 shares, prepays the entire amount for 138 months, making $6,900, which is loaned to B, a borrower of 34.5 shares. C, an investor at this time in six shares, completes Series No. 1.

B's and C's monthly payments—

| | |
|---|---|
| B's dues | $34.50 |
| B's interest | 34.50 |
| C's dues | 6.00 |
| =$75 | |

for 138 months, equivalent to the full amount of $10,350, in 69 months (one-half of 138 months, when it is assumed that it is all paid), is loaned to D, a borrower on 51.75 shares. E at this time invests in 1.5 shares, completing Series No. 2.

D's and E's monthly payments—

| | |
|---|---|
| D's dues | $51.75 |
| D's interest | 51.75 |
| E's dues | 1.50 |
| =$105 | |

for 69 months, equivalent to $7,245 in 34½ months (one-half the remaining 69 months) is loaned to F, a borrower on 36.225 shares. G at this time invests in nine shares, completing Series No. 3.

F's and G's monthly payments—

| | |
|---|---|
| F's dues | $36.225 |
| F's interest | 36.225 |
| G's dues | 9.00 |
| =$81.45 | |

for 34½ months, equivalent to $2,810 in 17¼ months (one-half the remaining 34½ months), is loaned to H, a borrower on 14.5 shares, who, with I, an investor in three shares, completes Series No. 4.

H's and I's monthly payments—

| | |
|---|---|
| H's dues | $14.50 |
| H's interest | 14.50 |
| I's dues | 3.00 |
| =$32 | |

for 17¼ months, equivalent to $552 in 8.62 months (one-half the remaining 17¼ months), is loaned to J, a borrower on 2.76 shares, who, with K, an investor in four shares, completes Series No. 5.

J's and K's monthly payments—

| | |
|---|---|
| J's dues | $2.76 |
| J's interest | 2.76 |
| K's dues | .40 |
| =$5.92 | |

for 8.62 months, equivalent to $51 in 4.31 months (one-half the remaining 8.62 months) is loaned to L, a borrower on .255 share, who, with M, an investor in .89 share, forms Series No. 6.

L's and M's monthly payments—

| | |
|---|---|
| L's dues | $0.255 |
| L's interest | .255 |
| M's dues | .89 |
| =$1.40 | |

in 4.31 months, equivalent to $6 in 2.15 months (one-half the remaining 4.31 months), etc.

The formation of the remaining series will be readily understood from the foregoing explanation of the previous ones and reference to Summary A.

### (323) LOANING AND EARNING RATES.

There is no connection, mathematically, between loaning and earning rates. The interest rate, that rate which regulates the charge for the use of money in an association, and which is more properly designated as the loaning rate, is only used as an aid in determining what instalment sum shall be paid by the borrower as interest, and that having been ascertained, it ceases to be a factor in all subsequent calculations.

When profits have, at any time, been apportioned, the method for computing the rate earned is by the use of

### (324) DAVIS'S EARNING RATE RULE.

1. Multiply the gain per share by 12.
2. Multiply the cost of the share by one-half the number of months the share has run plus ½.
3. Divide the product of the first by the product of the second and the result will be the rate earned.

This rule applies to payments (as is usually the case) made at the beginning of the month. When they are made in the middle of the month, as they are represented to have been made in the accounting under consideration, the "plus ½" portion of the rule should be omitted.





The problem then presented is, what rate has been earned on one share of a matured value of $200.65, on which $138 has been paid in as many months. The application of the rule gives this resulting equation: 200.65—138=62.65×12÷(138×39)=7.8+per cent.

This calculation determines not only the earning rate, but also verifies the correctness of the assertion previously made that there is no collateral relation between loaning and earning rates, for, with a six per cent loaning rate, we have an earning rate of nearly eight per cent, which is the simple interest rate, the only one readily calculable or necessary for practical requirements, for with its aid the time for maturity may be accurately forecasted at any previous period to such maturity, when the said rate has been properly ascertained and in connection with suitable earning rate tables.—Ed. C. Davis, author of the Standard Maturity Tables.

### (326) COMPUTING PROFIT ON SHARES.

The state of Missouri provides for the examination of building and loan associations, creating a bureau to that end. One of the requirements made by the bureau was that the examiners should calculate the value of the shares of each association examined and the rule adopted by the bureau was as follows: Multiply the number of shares in each series by the payment upon each share to find the investment per series; multiply investment per series by the average time in months which the series had run to find the investmment for one month in each series; divide the total investment for one month into the total profit to find the rate of profit; multiply the investment for one month in each series by the rate to obtain the profit per series; divide the profit per series by the number of shares in the series to obtain the profit per share.

Anyone who has made these calculations need not be told that an examiner found rather a tedious piece of work ahead of him when he reached the calculation of values, nor that this task came to be viewed with much distaste as it came up day after day, but for the benefit of those who have never made this calculation I will give an illustration, using five series with a payment of $100 per month per share.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1268 | × 128 | × 64.5 | = 10468608 | × .0066654 | + $69789.39 | ÷ 1268 | = $55.04 |
| 2 | 115 | × 46 | × 23.5 | = 124315 | × .0066654 | = 828.75 | ÷ 115 | = 7.20 |
| 3 | 54 | × 34 | × 17.5 | = 32130 | × .0066654 | = 214.20 | ÷ 54 | = 3.96 |
| 4 | 56 | × 22 | × 11.5 | = 14168 | × .0066654 | = 94.45 | ÷ 56 | = 1.68 |
| 5 | 65 | × 10 | × 5.5 | = 3575 | × .0066654 | = 23.83 | ÷ 65 | = .36 |

Profit $70950.68 divided by 10642796 the investment = rate..... .0666654

It soon appeared that by multiplying the investment per share by the average months invested to find the investment for one share for one month and then multiplying that result by the number of shares to find the investment for one month for the series, one would be able to multiply the investment per share for one month by the rate of profit thereby obtaining

the profit per share at one operation. The proof was obtained by multiplying the profit per share by the number of shares in the respective series and adding the products to obtain the total profit distributed. Even this change did not do away with enough labor, and further consideration showed that the method in use was equivalent to using an interest basis of one per cent per month, and that a basis of six per cent per annum would give identical results. The next step was to make up a table giving the simple interest at six per cent per annum for each month from one to one hundred and fifty months upon one share having a monthly payment of one dollar. After this was done the calculation was performed by multiplying the number of shares in each series by the interest shown by the table for the number of months the shares had run and then adding the results to find the interest at 6 per cent on all the series. This result was divided into the profits to find the per cent, and the interest per share was multiplied by the rate thus ascertained, the result being the profit per share. The proof of the calculation was to multiply the profit per share by the number of shares in the respective series the total of the various products being the amount of profit distributed. It was never the rule to attempt to run the decimal out to a point where the distribution would exactly equal the profit.

Using the same figures as above given, the calculation would be as follows:

| Series | Shares | | Interest per Share | | Interest per Share | | Interest per Share | | Per Cent. Profit | | Profit per Share |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1268 | × | $41.28 | = | $52343.04 | $41.28 | × | 1.333 | = | $55.04 |
| 2 | 115 | × | 5.405 | = | 621.575 | 5.405 | × | 1.333 | = | 7.20 |
| 3 | 54 | × | 2.975 | = | 160.65 | 2.975 | × | 1.333 | = | 3.96 |
| 4 | 56 | × | 1.265 | = | 70.84 | 1.265 | × | 1.333 | = | 1.68 |
| 5 | 65 | × | .275 | = | 17.875 | .275 | × | 1.333 | = | .36 |

Profit $70,950.68 divided by $53,213.98 = rate.....1.3333+.

This was much better, in fact many of the terrors of apportioning profits disappeared when this plan was adopted, and any person who has such calculations to make could not well employ his time to better advantage than in preparing an interest table fitting the conditions under which he is working with a view of using this method.

However, further study developed that the calculations could be performed by the use of logarithms with a saving of some time not to mention the saving of brain fag. To this end a table of logarithms was taken from an old text book and the interest table was reduced to terms of logarithms, and the tables of interest and of logarithms were bound in a small book.

The calculation as it was made under the ultimate plan was as follows: (The same data is used for this as for other calculations.)

| | | Interest per Series. | Profit per Share. |
|---|---|---|---|
| 1 | (1) | .124932 | |
| | (2) | 1.615740 | |
| | (3) | 3.103119 | |





| | | | | |
|---|---|---|---|---|
| | (4) | 4.718859..... | $52343.00 | |
| | (5) | 1.740672..... | | $55.04 |
| 2 | (1) | .124932 | | |
| | (2) | .732796 | | |
| | (3) | 2.060698 | | |
| | (4) | 2.793494..... | 621.58 | |
| | (5) | .857728..... | | 7.20 |
| 3 | (1) | .124932 | | |
| | (2) | .473487 | | |
| | (3) | 1.732394 | | |
| | (4) | 2.205881..... | 160.65 | |
| | (5) | .598419..... | | 3.96 |
| 4 | (1) | .124932 | | |
| | (2) | .102091 | | |
| | (3) | 1.748188 | | |
| | (4) | 1.850279..... | 70.84 | |
| | (5) | .227028..... | | 1.68 |
| 5 | (1) | .124932 | | |
| | (2) | —1.439333 | | |
| | (3) | 1.812913 | | |
| | (4) | 1.252246..... | 17.87 | |
| | (5) | —1.564265..... | | .36 |

The key figures above are for the following: 1, logarithm of rate of profit; 2, logarithm of interest per share; 3, logarithm number of shares; 4, logarithm of interest per series; and 5, logarithm of profit per share. Adding 2 and 3 gives interest per series (4) as expressed in logarithms, which must be reduced to numbers as shown; the rate of profit is found by subtracting the logarithm of the interest for all the series from the logarithm of the profit, the result is placed at 1 for convenience in calculating, as 1 and 2 are added to obtain 5 which represents the logarithm of the profit per share. Of course in performing an actual calculation 2 and 3 are first found and added together, giving 4, and later 1 is placed above 2 and a pencil is run through 3 and 4 and 1 and 2 are added, giving 5. Such is the speed which can be obtained by this method that I have distributed profits among twelve series and proven the work in less than 40 minutes.

Whether the calculation by logarithms will be of benefit depends on whether one understands the system, but it should be of interest to those who enjoy higher mathematics.—(A. G. Conen.)

## (327) BY.

A word prefixed to entries on ledger accounts to indicate that they are credits, as opposed to the word "to," which indicates debits.

On the other hand, in a journal, the prefix "to" indicates credits, the word "by" not being used.

These prefixes, however, are not used by modern accountants either in ledger or journal, the arrangement of the debit and credit columns being all that is necessary to indicate the description of entries.

## (328) CALL REGISTER.

A record showing particulars of stock subject to call; date of payment of call, etc.

## (328A) CALCULATING MACHINES.

From remote antiquity, when man first began to deal in merchandise and to barter with his fellow creatures by means of a rude gibberish, he has been confronted by accounts. Doubtless the first trial balance resulted in a fracas with stone hammers between merchant and customer or a jaw bone duel between employer and employee. The difficulties encountered in handling accounts have ever been an incentive for the invention of some scheme by which the memos of dealings could be recorded without carrying all of them in the mind.

For centuries, shells, pebbles and fingers served as counters and perhaps the more skillful and intelligent dealers in merchandise used a code of stone scratched debits and credits as a record of their transactions. These methods were cumbersome and inaccurate in the extreme but at the same time furnished the necessity that mothered the inventions of subsequent book-keeping systems and mechanical accountants.

The struggles during the early history of man to render correct accounts were two-fold in nature. First he sought a system of symbols to form a basis of his calculations and second he was ever on the alert to discover a way to manipulate them with the greatest mental economy.

Try as he might, it was not until after several generations had passed away that he ceased to use fingers and pebbles as his units. This crude system was somewhat improved about the time of Confucius by a Chinese invention called the "Swan Pan," which had its counterpart several centuries later in the "Abacus" of the Greeks and Romans.

The "Swan Pan" and "Abacus" consisted of a square frame fitted with cross wires on which were strung perforated bits of bone or wooden beads. The calculations were made by shifting beads or bones into various positions according to the nature of the problem. This piece of computing apparatus was the first on which units in excess of nine could be carried to the next higher order, tens in excess of nine into hundreds and so on up into the thousands. All amounts were carried forward by setting the beads by hand.

The Babylonians used a somewhat similar device for calculating and made a record of their transactions on clay tablets inscribed with cuneiform characters. A wedged shaped instrument was used for making the impressions on the clay while comparatively soft. The tablet was then baked to an enduring hardness, and filed in the general accounting room in stone jars for safe keeping.

The Romans were the first to use a system of numerals that could be handled with any degree of ease and even this improved system did not admit of a mechanical manipulation.

It was not until after the Arabic system of numerals had been invented and amounts were recorded in column form, units under units and tens





under tens that mathematicians and accountants began to consider seriously mechanical ways and means of handling figures.

Early in the 18th century Napier produced a calculating rod that was of some assistance in working problems and a little later Pascal investigated the principle of carrying units into tens, tens into hundreds and so forth by means of wheels with the numerals from 1 to 0 on the periphery. He succeeded in constructing a crude model which aroused considerable interest.

In the later half of the century, Leibntiz, the great German mathematician and philosopher, constructed the first machine that would perform the arithmetical functions of addition, subtraction, multiplication and division successfully. Leibnitz's machine furnished inspiration to a host of inventors and served as a pattern from which numerous multiplying and dividing machines were constructed.

It was not until 1823 that the idea of a recording machine was conceived. Charles Babbage, an Englishman, labored ten years on the construction of a very elaborate piece of mechanism which was designed not only to perform the arithmetical processes but to make automatically all manner of abstruce astronomical calculations and record the results on metallic plates. This "Difference Engine," as it was called by its inventor, marked an era in the history of mechanical calculators because it was the first machine built to record its results. The machine itself was about the size of a square piano, had eighteen dials revolving on three vertical shafts that were actuated by an extremely intricate mechanism. This machine, however, was not a success despite the thousands of pounds expended toward its perfection and was finally abandoned by its inventor and relegated to the museum, a marvel of mechanical workmanship but a mathematical failure.

Numerous non-recording machines were built during the next few years following the fruitless attempts of Babbage. Successful models were produced in Germany, Austria, Switzerland, France, Sweden and England. All these machines were built principally for the purpose of making rapid multiplications and divisions and while they were of the greatest assistance to mathematicians in making various kinds of calculations they could not lend any material aid to the mechanical handling of accounts.

The first successful adding and listing machine, which belongs to the class that can properly be termed "mechanical accountants," was produced in 1891. It was the invention of William Seward Burroughs, a native of the State of New York and an ex-bank clerk, who labored assiduously on his models for seven years before a successful machine was produced.

The "Registering Accountant" as it was called at that time marked another epoch in the history of mechanical accounting and was destined to become a few years later one of the most important adjuncts to all forms of accounting, recording and statistical work.

It was the first machine to perform successfully the functions of addition, subtraction, multiplication, and division and to record all the items entering into the processes as well as the results on a strip of paper.

The original machine was used only for adding and listing amounts on a narrow paper ribbon. The banks were quick to realize the advantages to be obtained by using a mechanical accountant that could add and list and shortly after the first successful machines were built many banks acquired them and utilized them for simple adding and listing purposes. It was not long, however, until the feature of adding and listing items on a narrow ribbon was found to be capable of a broader application and the result was an improvement on the machine in the way of a wide carriage, somewhat similar in construction to a typewriter carriage and capable of accomodating a sheet of paper on which several columns of figures could be added and listed. This improvement increased materially the efficiency of the machine and made it one of the most important features in the handling of accounts in banks.

### DUPLEX ADDING MACHINE.

The foregoing variations of the adding machine did not materially alter its mechanism and it was not until banks, commercial houses, etc. began to call for a machine that would take totals of a number of groups of items and at the same time accumulate a grand total that there was a departure from the regular construction.

Accountants called for an extraordinary machine and the Duplex Adding and Listing Machine answered the call. While the external appearance of this wonderful machine does not differ from the original models it has an additional mechanism under the case that enables an operator to obtain large group totals and a large grand total just double the size possible on the regular machine.

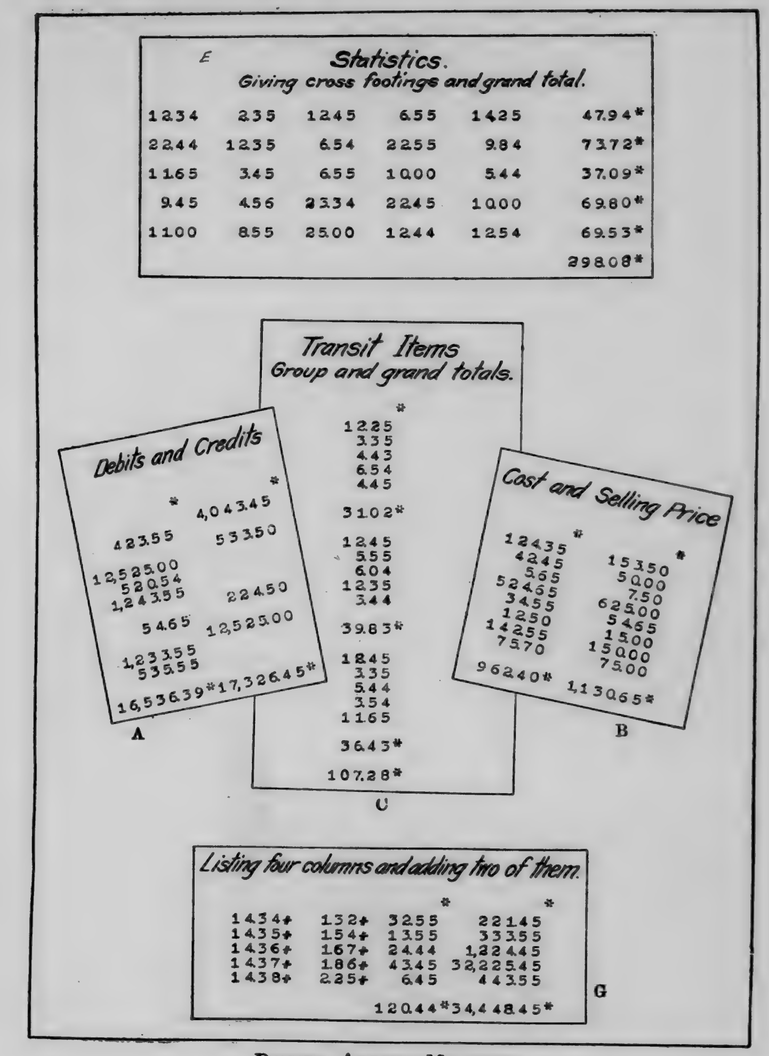
This wonderful piece of mechanism has been rightly termed the Duplex Machine, since it is practically two machines combined in one. Thus with the ordinary nine column Duplex machine, it is possible to add and list two columns of figures with a totalling capacity in each 9 9 9 9 9 9 9 9 9, and with the number 15, two totals with a capacity of 9 9 9 9 9 9 9 9 9 9 9 9 9 9 can be obtained.

Figure A shows how this machine can be used for taking down and footing debits and credits. Figure B shows how the machine is used for recording cost and selling price and printing the totals of each. Figure C shows how transit items are handled, obtaining the total of each group and at the same time accumulating the grand total of all the groups. Figure D shows how the machine is used by department stores for recording the sales of each clerk, and at the same time printing the grand total of all sales, which makes it unnecessary to go back over the records and make a recapitulation. Figure E shows how statistical work can be done by this machine,





these totals. Figure F shows two columns of very large amounts that have given a total of each row of figures and then printing the grand total of been added and listed at one operation by this machine.

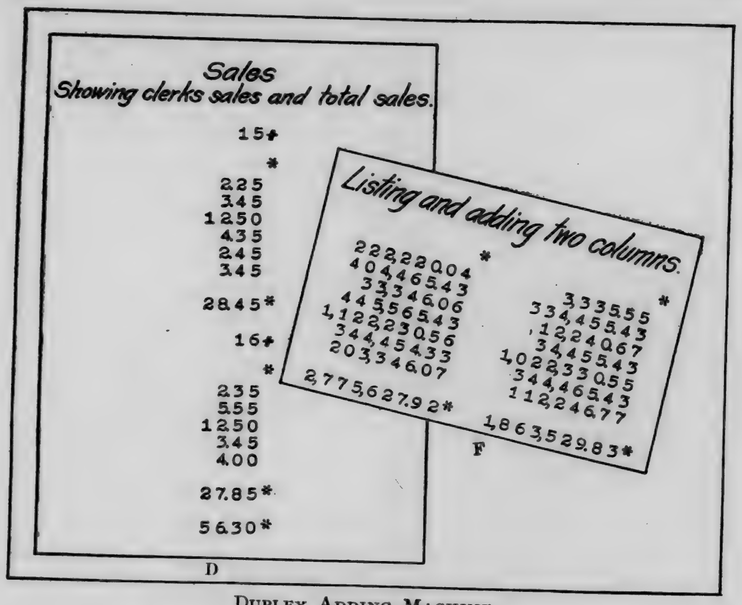



Duplex Adding Machine.

It is often very desirable in the preparation of certain records to take down all amounts indicated on a certain card or a certain page at one time without the necessity of going back through the cards as many times as there are columns of items to be transcribed. Figure G gives an illustration of an instance of this kind.

What further perfection in mechanical accounting aided by loose leaf records, card systems, adding machines and other mechanical short cut accessories will result in the next few years would be a difficult matter to predict.

At the present stage the latest development in adding and listing mechanical accountants is the motor drive, wide carriage, duplex machine which stands almost as far in advance of the first adding and listing machine as the first adding and listing machine was in advance of the ancient Chinese "Swan Pan."




Duplex Adding Machine.

Recapitulates and makes grand total at one operation.

PROOF OF POSTINGS.

There is no safeguard so effective for preventing errors in a trial balance as a daily proof of postings. If the bookkeeper proves his postings every day he can be assured, that, in case an error does creep into the trial balance, it is due to transcribing wrong amounts to his balance sheet and not that some mistake had been made in posting a wrong amount to an account in the





**Ledger Posting Proof**

| Sales A to L | | | Sales M to Z | | |
|---|---|---|---|---|---|
| * | 2,389.05* | | * | 2,788.67* | |
| 13.90 | 3.20 | | 7.50 | 20.55 | |
| 43.60 | 210.90 | | 64.80 | 55.10 | |
| 1.15 | 124.00 | | 32.30 | 13.00 | |
| 50.90 | 5.20 | | 39.75 | 52.50 | |
| 216.30 | 97.10 | | 46.40 | 45.60 | |
| 407.80 | 32.30 | | 59.95 | 73.80 | |
| 43.00 | 40.80 | | 173.85 | 90.08 | |
| 5.20 | 114.80 | | 2.85 | 48.00 | |
| 66.40 | 38.60 | | 79.90 | 14.80 | |
| 11.98 | 30.46 | | 2.00 | 25.30 | |
| 1.50 | 50.25 | | 47.00 | 19.20 | |
| 3.00 | 45.00 | | 155.03 | 16.00 | |
| 106.70 | 81.00 | | 55.20 | 35.35 | |
| 24.00 | 65.20 | | 12.00 | | |
| 45.00 | | | 38.25 | 3,297.95* | |
| 18.00 | 3,327.86* | | 14.40 | | |
| 40.35 | | | 24.00 | | |
| 499.25 | | | .72 | | |
| 91.50 | | | 95.00 | | |
| 24.73 | | | 4.00 | | |
| 28.80 | | | 13.50 | | |
| 205.00 | | | 294.75 | | |
| 54.15 | | | 50.10 | | |
| 2.50 | | | 24.00 | | |
| 35.20 | | | 50.28 | | |
| 54.00 | | | 39.30 | | |
| 85.20 | | | 1.75 | | |
| 6.30 | | | 112.35 | | |
| 9.38 | | | 158.20 | | |
| 32.30 | | | 7.80 | | |
| 73.50 | | | 1.72 | | Recapitulation |
| 36.05 | | | 38.40 | | * |
| 4.50 | | | 79.20 | | 3,327.86 |
| 47.91 | | | 962.42 | | 3,297.95 |
| 2,389.05* | | | 2,788.67* | | 6,625.81* |

Proof of Posting.

ledger. It is much easier for him to check back over the amounts entered on his balance sheet than to go back over his ledger and compare the postings with the books of original entry. The daily proof of postings gives him an unquestionable assurance that all the amounts are correct and saves him time and overwork at the end of the month.

If the hand method of reverse proof of posting is used, where the amounts are transcribed to a sheet as they are posted, and afterwards are footed, so much extra work is involved that few bookkeepers care to undertake it and would prefer trusting to their accuracy in transcribing.

When the bookkeeper began casting about for something that would enable him to prove his postings every day he found the needed assistance in the adding and listing machine. There was a method awaiting to be discovered and he discovered it.

It is simple. Whenever a posting is made a colored marker is inserted so that it projects slightly above the top of the page. Different colored markers are used for debits and credits. After all the postings have been made, the bookkeeper turns to the first debit marker and adds and lists the amount on the machine. All debits are added and listed in a similar manner and a total taken. Then the credits, indicated by the credit markers, are added and listed

**Daily Sales Sheet**

Date 190

| SALESMEN | | | | | |
|---|---|---|---|---|---|
| J. L. May | Robt. J. Cook | F. H. Jones | T. G Wilson | Frank R. Dale | C. E Flint |
| 13.90 | 45.00 | 112.35 | 79.20 | 40.80 | 14.80 |
| 43.60 | 18.00 | 158.20 | 36.05 | 114.80 | 30.46 |
| 7.50 | 38.25 | 6.30 | 4.50 | 73.80 | 50.25 |
| 1.15 | 40.35 | 7.80 | 96.242 | 38.60 | 45.00 |
| 64.80 | 14.40 | 9.38 | 20.55 | 90.08 | 25.30 |
| 32.30 | 49.92 | 1.72 | 47.91 | 48.00 | 19.20 |
| 50.90 | 24.00 | 32.30 | 3.20 | | 81.00 |
| 216.30 | .72 | 73.50 | 210.90 | 406.08 | 65.20 |
| 39.75 | 91.50 | 38.40 | 55.10 | | 16.00 |
| 46.40 | 95.00 | | 124.00 | | 35.35 |
| 407.80 | 24.73 | 439.95 | 13.00 | | |
| 59.95 | 4.00 | | 52.50 | | 382.56 |
| 173.85 | 13.50 | | 5.20 | | |
| 43.00 | 294.75 | | 97.10 | | |
| 5.20 | 50.10 | | 45.60 | | |
| 2.85 | 28.80 | | 32.30 | | |
| 79.90 | 205.00 | | 1789.53 | | |
| 66.40 | 24.00 | | | | |
| 2.00 | 54.15 | | | | |
| 47.00 | 50.28 | | | | |
| 11.98 | 2.50 | | | | |
| 1.50 | 35.20 | | | | |
| 3.00 | 39.30 | | | | |
| 155.03 | 1.75 | | | | |
| 106.70 | 54.00 | | | | |
| 55.20 | 85.20 | | | | |
| 12.00 | | | | | Recapitulation |
| 24.00 | 1833.73 | | | | |
| 1773.96 | | | | | 1,773.96 |
| | | | | | 1,833.73 |
| | | | | | 439.95 |
| | | | | | 1,789.53 |
| | | | | | 406.08 |
| | | | | | 382.56 |
| | | | | | 6625.81 |

PROOF OF POSTING.

and the total taken. The debits and credit totals thus obtained, should agree with the totals on the original books of entry.

### MONTHLY STATEMENTS.

The wide machine with 15 columns of keys and the split and normal device, permits of so many variations that it was soon discovered that monthly statements could be prepared by arranging the machine to print abbreviations for months and dates in two sections of the keyboard and to add and list amounts in a third section.

Much time was formerly required to prepare statements because all the items were entered by hand and the amounts added mentally. The statement machine, which is no more or less than an improved variety of the adding and listing machine, is capable of printing month, day of month, number of articles, and amount at the same time. To the book-keeper who is still using the hand method this seems almost impossible, but it is a regular occurrence in hundreds of houses who use this improved form of mechanical accountant.

By using this machine the operator can transcribe dates, number of items and amounts from a ledger at one operation. It is not even neces-





Terrell, Texas, Jany 2 1906

M. Walker Bros
Aaronsdale Tex

—IN ACCOUNT WITH—

**TERRELL WHOLESALE GROCERY CO.**

**Wholesale Grocers.**

RED FIGURES ARE DATES. BLACK ARE AMOUNTS.

| DEBITS | | | CREDITS | | |
|---|---|---|---|---|---|
| Bal. Rend. | | 316.56 | Cash | 10 | 300.00 |
| To Mdse. | 2 | 24.54 | By Memo. | 12 | 1.43 |
| | 3 | 53.65 | | | 2.13 |
| | 5 | 10.00 | | | |
| | 7 | 34.00 | | | |
| | 9 | 43.65 | | | |
| | 12 | 35.03 | | | |
| | 14 | 6.50 | | | |
| | 16 | 6.05 | | | |
| | 18 | 135.00 | | | |
| | 21 | 43.05 | | | |
| | 24 | 65.00 | | | |
| | 27 | 76.25 | | | |
| | 31 | 51.00 | | | |
| | | | Balance | | 596.72 |
| | | 900.28 | | | 900.28 |

Amount of Account - - $_____

Amount Past Due - - $_____

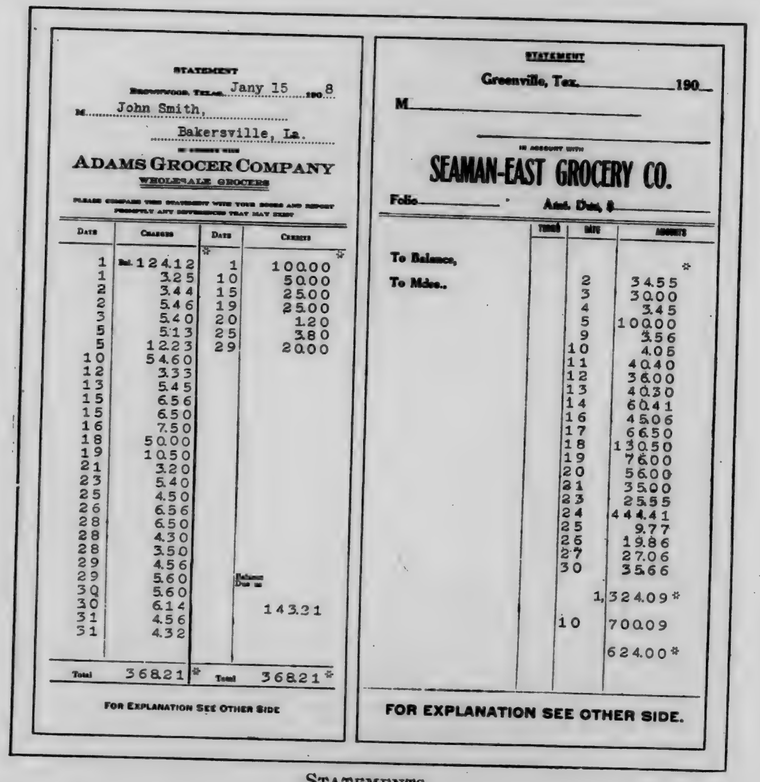
ABOVE WE HAND YOU STATEMENT OF YOUR ACCOUNT. IF ANY DIFFERENCES, NOTIFY US PROMPTLY. THIS STATEMENT SHOWS THE AMOUNT OF YOUR ACCOUNT. THE AMOUNT PAST DUE. WE COMMEND SAME TO YOUR CONSIDERATION AND WILL EXPECT YOUR PROMPT REMITTANCE OF THE PAST DUE AMOUNT.

Yours truly,

TERRELL WHOLESALE GROCERY CO.

STATEMENTS.

sary for him to insert a statement sheet. The statements come in rolls, so that they can be run off one after the other for as many statements as are desired. In those cases where only dates and amounts are used, the date is put in one section of the machine keyboard and the amount in the other. The handle is pulled once and both the date and amount are listed and the amount only is added. When all the dates and amounts for one account have been transferred to the statement in the manner just described, the total button is pressed, the handle pulled and the total of all the amounts is printed.



STATEMENT

Brookwood, Tex., Jany 15 190 8

M. John Smith,
Bakersville, La.

IN ACCOUNT WITH

ADAMS GROCER COMPANY
WHOLESALE GROCERS

PLEASE COMPARE THIS STATEMENT WITH YOUR BOOKS AND REPORT PROMPTLY ANY DIFFERENCES THAT MAY EXIST

| Date | Charges | Date | Credits |
|---|---|---|---|
| 1 | Bal. 124.12 | 1 | 100.00 |
| 1 | 3.25 | 10 | 50.00 |
| 2 | 3.44 | 15 | 25.00 |
| 2 | 5.46 | 19 | 25.00 |
| 3 | 5.40 | 20 | 1.20 |
| 5 | 5.13 | 25 | 3.80 |
| 5 | 12.23 | 29 | 20.00 |
| 10 | 54.60 | | |
| 12 | 3.33 | | |
| 13 | 5.45 | | |
| 15 | 6.56 | | |
| 15 | 6.50 | | |
| 16 | 7.50 | | |
| 18 | 50.00 | | |
| 19 | 10.50 | | |
| 21 | 3.20 | | |
| 23 | 5.40 | | |
| 25 | 4.50 | | |
| 26 | 6.56 | | |
| 28 | 6.50 | | |
| 28 | 4.30 | | |
| 28 | 3.50 | | |
| 29 | 4.56 | | |
| 29 | 5.60 | Balance Due | 143.21 |
| 30 | 5.60 | | |
| 30 | 6.14 | | |
| 31 | 4.56 | | |
| 31 | 4.32 | | |
| Total | 368.21 | Total | 368.21 |

FOR EXPLANATION SEE OTHER SIDE

STATEMENT

Greenville, Tex. 190

M

IN ACCOUNT WITH

SEAMAN-EAST GROCERY CO.

Folio Acct. Dep. 8

| | Terms | Date | Amounts |
|---|---|---|---|
| To Balance, | | | |
| To Mdse., | | 2 | 34.55 |
| | | 3 | 30.00 |
| | | 4 | 3.45 |
| | | 5 | 100.00 |
| | | 9 | 3.56 |
| | | 10 | 4.05 |
| | | 11 | 40.40 |
| | | 12 | 36.00 |
| | | 13 | 40.30 |
| | | 14 | 60.41 |
| | | 16 | 45.06 |
| | | 17 | 66.50 |
| | | 18 | 130.50 |
| | | 19 | 76.00 |
| | | 20 | 56.00 |
| | | 21 | 35.00 |
| | | 23 | 25.55 |
| | | 24 | 444.41 |
| | | 25 | 9.77 |
| | | 26 | 19.86 |
| | | 27 | 27.06 |
| | | 30 | 35.66 |
| | | | 1,324.09 |
| | | 10 | 700.09 |
| | | | 624.00 |

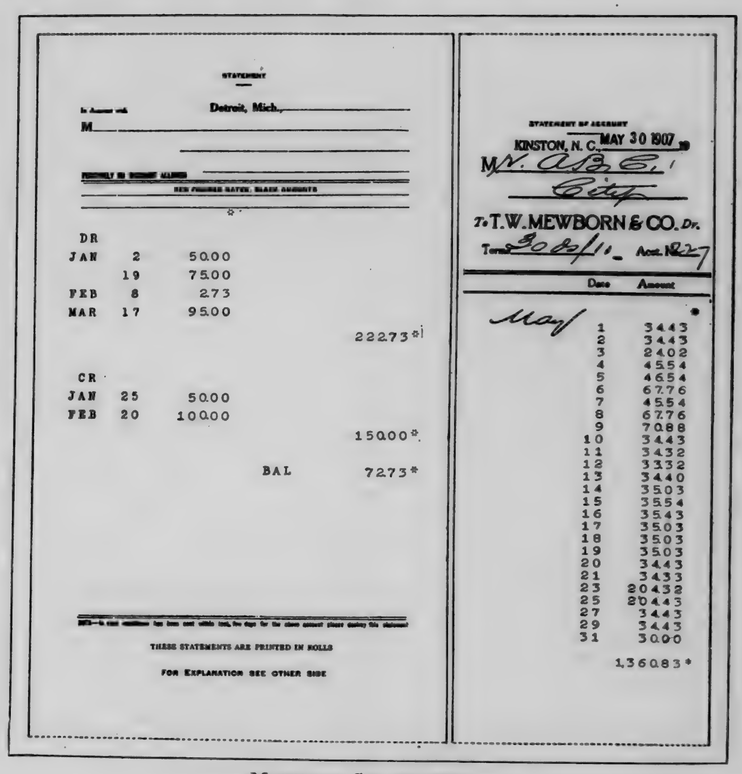
FOR EXPLANATION SEE OTHER SIDE.

STATEMENTS.

The dates and amounts being entered on the statement, it is torn off and dropped into the ledger at the account from which the amounts have been taken, and after all the statements have been made in this manner the book-keeper turns to the first and enters the name, and at the same time







STATEMENT

In Account with Detroit, Mich.

M

PROMPTLY IN REMIT ALWAYS

SEE PROMISED RATES. BLACK AMOUNTS

| | | | |
|---|---|---|---|
| DR | | | |
| JAN | 2 | 50.00 | |
| | 19 | 75.00 | |
| FEB | 8 | 2.73 | |
| MAR | 17 | 95.00 | |
| | | | 222.73 |
| CR | | | |
| JAN | 25 | 50.00 | |
| FEB | 20 | 100.00 | |
| | | | 150.00 |
| | | BAL | 72.73 |

THESE STATEMENTS ARE PRINTED IN ROLLS

FOR EXPLANATION SEE OTHER SIDE

STATEMENT OF ACCOUNT

KINSTON, N. C. MAY 30 1907

Mr. A. & E.
City

To T.W. MEWBORN & CO. Dr.

Terms 30 days/11 Acct. 1827

| | Date | Amount |
|---|---|---|
| May | 1 | 34.43 |
| | 2 | 34.43 |
| | 3 | 24.02 |
| | 4 | 45.54 |
| | 5 | 46.54 |
| | 6 | 67.76 |
| | 7 | 45.54 |
| | 8 | 67.76 |
| | 9 | 70.88 |
| | 10 | 34.43 |
| | 11 | 34.32 |
| | 12 | 33.32 |
| | 13 | 34.40 |
| | 14 | 35.03 |
| | 15 | 35.54 |
| | 16 | 35.43 |
| | 17 | 35.03 |
| | 18 | 35.03 |
| | 19 | 35.03 |
| | 20 | 34.43 |
| | 21 | 34.33 |
| | 23 | 20.32 |
| | 25 | 20.43 |
| | 27 | 34.43 |
| | 29 | 34.43 |
| | 31 | 30.00 |
| | | 1,360.83 |

MONTHLY STATEMENTS.
Month, date and amount handled at same time.

compares the statement footing with the ledger footing. In this way both the statement footings are checked.

In this connection it might be well to point out a very valuable feature of the mechanical accountant. It has been shown how daily postings could be proved, the trial balance items taken off and monthly statements transcribed with the adding and listing machine.

These three phases of the accountant's work are linked together by the use of the adding machine and serve as a check against each other. The proof of postings, which can be applied to the cash book as well as the ledger, assures the book-keeper of the accuracy of his postings. Then the monthly statements check up the footings of the ledger accounts, and finally the items on the trial balance sheets are added correctly by using the machine.

When mechanical accounting is carried out in this way there is but one chance of missing a balance, and that will occur only when an error is made in transcribing amounts from the ledger to the working sheets.

### CASH RECEIVED.

There is another valuable application of the adding machine which is due to its ability to add and list. This application is that of handling cash received.

When the mail comes in, all letters containing remittances are sent to the cashier, who marks on each letter in blue pencil the amount of the accompanying remittance.

In case a remittance is received with no letter accompanying it, the envelope is torn open and the amount marked in blue pencil on the envelope.

If a voucher is received, a copy of the items on the voucher is made on a special slip arranged for that purpose.

In the case of cash being received at the cashier's window or collected by the salesman, a cash memorandum of the amount is made, similar to the slip used for vouchers.

After arranging the letters and the remittances according to the ledger divisions, the cashier adds and lists on the machine the various amounts received. These slips and letters are all sent to the book-keeper, who re-arranges them according to the classification of his ledger. He opens the ledger to the first account and figures the discount. If the customer has made the proper deduction, the amount is added to the blue-pencil figures made by the cashier, and the amount of cash received, plus the discount, is posted to the credit of his account in the ledger direct from the letter, slip or invoice.

In case a bound ledger is used, the folio number is marked on the letter at the time the posting is made. After the amount has been posted the letter is placed in the ledger opposite the account, and remains there until all postings are completed. The letter thus serves as a marker, indicating the location of the active accounts. The book-keeper, or an assistant, then opens the ledger to the first account, as shown by the projecting letter, and lists and adds, on the machine, the actual amount posted, taking it from the ledger page. The amount of the discount is then transcribed from the letter and added and listed on the machine, and the folio or account number can also be printed with the machine.

When the amounts posted in the ledger have been listed and added by the machine, the difference between the "discount" column and the "amount posted" column should equal the amount of cash held by the cashier for that ledger division.





In case the business is one in which no discount is allowed, the amount taken from the ledger must equal the amount of cash in the cashier's hands. Transpositions and other errors in posting will be detected by this comparison.

The letters and slips are alphabetically arranged and filed each day, the machine record being placed on the file with the letters and slips.

At the end of the month the letters are taken from the file, bound between heavy pasteboards and labelled with the ledger division and month.

It is much easier to locate a letter filed in this manner than when it is filed with the general correspondence, for nothing is placed in this binder except letters, slips and envelopes pertaining to cash. Hence, in case a customer complains regarding an error in the credit side of his account, it is very easy to refer at once to the original letter which accompanied his remittance instead of being compelled to first consult the cash book or cash journal and then the general correspondence files.

### DAILY BANK BALANCES.

Another feature of the mechanical accounting in banks is that of preparing the daily bank balance by means of yesterday's and today's balances.

After the postings have been made to the various ledger accounts in the customer's ledgers, a sheet is inserted in the adding machine carriage and in a column headed "Deposits," all the deposit items are listed and added. Then the carriage is shifted over and the check amounts are added and listed in their proper column. The next process is to turn to the active accounts (indicated by some suitable marker inserted at the time of posting) and take off the "yesterday's" balances and list and add the amounts in their proper column. The "today's" balances are added and listed in a similar manner.

Now the total deposits plus the total yesterday's balances should agree with the "total checks plus the total day's balances." An agreement of these totals proves four things: First, that the postings in the ledgers are correct; second, that the extensions for the balances have been made correctly; third, that the checks have been added right; and, fourth, that the deposit tickets have been added right.

The machine makes it possible to do this work in about one-third the time that would be required to do the work by hand and mind.

The general debits and credits, as well as the cash items, can also be entered on the sheet as shown in figure 8.

## DAILY BANK BALANCE AND LEDGER PROOF SHEET

| DEPOSITS | LEDGER BALANCE YESTERDAY'S | LEDGER BALANCE TODAY'S | CHECKS | CHECKS |
|---|---|---|---|---|
| | | | | 1,623.92* |
| 53.31 | 153.31 | 243.24 | 28.00 | 5.00 |
| 53.51 | 253.32 | 345.67 | 5.00 | 19.60 |
| 1,254.00 | 1,245.00 | 1,020.50 | 103.40 | 3.00 |
| 5.00 | 56.00 | 65.01 | 3.13 | 5.00 |
| 77.80 | 77.85 | 78.78 | 22.40 | 5.00 |
| 120.00 | 121.03 | 220.34 | 225.00 | 150.00 |
| 345.04 | 345.65 | 354.00 | 2.00 | 4.00 |
| 20.00 | 21.00 | 41.00 | 3.28 | 1.50 |
| 312.00 | 310.30 | 450.70 | 160.00 | 5.00 |
| 6.00 | 6.01 | 66.00 | 5.00 | 20.00 |
| 7.00 | 7.00 | 8.03 | 5.75 | 100.00 |
| 3.85 | 3.85 | 5.00 | 2.29 | 10.00 |
| 39.25 | 39.26 | 149.26 | 160.00 | 100.00 |
| 200.00 | 201.00 | 104.05 | 2.08 | 1,020.00 |
| 20.00 | 34.07 | 43.00 | 3.00 | 10.00 |
| 402.53 | 406.35 | 400.00 | 3.50 | 19.60 |
| 259.46 | 259.40 | 267.76 | 181.20 | 20.10 |
| 49.94 | 49.93 | 59.90 | 19.65 | 54.00 |
| 5.00 | 2.45 | 4.45 | 5.00 | 31.00 |
| 3.00 | 13.00 | 26.00 | 2.40 | 40.00 |
| 577.59 | 574.59 | 4,506.00 | 5.75 | 503.00 |
| 111.00 | 211.03 | 70.00 | 4.50 | 203.00 |
| 300.00 | 306.00 | 54.034 | 2.87 | 43.00 |
| 700.00 | 700.00 | 106.78 | 3.22 | 76.00 |
| 530.50 | 530.86 | 545.06 | 3.30 | 44.60 |
| 529.50 | 359.87 | 700.00 | 3.64 | 53.80 |
| 100.00 | 104.56 | 346.00 | 4.25 | 443.00 |
| 20.00 | 300.00 | 44.03 | 4.45 | 32.00 |
| 24.00 | 240.57 | 23.45 | 5.00 | 60.00 |
| 160.10 | 161.10 | 54.35 | 11.05 | 7.00 |
| | 163.30 | 245.87 | 11.68 | |
| 6,685.38* | 4,240.00 | 1,011.00 | 44.00 | 4,577.12* |
| | 21.00 | 104.01 | 8.20 | |
| | 13.56 | 360.90 | 25.00 | |
| | 11,532.22 | 13,640.48* | 2.30 | |
| | 6,685.38 | 4,577.12 | 5.00 | |
| | 18,217.60 | 18,217.60* | 101.23 | |
| | | | 4.00 | |
| | | | 25.00 | |
| | | | 111.00 | |
| | | | 42.51 | |
| | | | 2.60 | |
| | | | 5.00 | |
| | | | 2.20 | |
| | | | 5.00 | |
| | | | 18.25 | |
| | | | 28.00 | |
| | | | 100.00 | |
| | | | 5.00 | |
| | | | 12.00 | |
| | | | 1.35 | |
| | | | 4.00 | |
| | | | 44.00 | |
| | | | 12.00 | |
| | | | 3.55 | |
| | | | 100.00 | |
| | | | 25.00 | |
| | | | 6.87 | |
| | | | 3.66 | |
| | | | 23.44 | |
| | | | 70.00 | |
| | | | 3.75 | |
| | | | 10.00 | |
| | | | 19.60 | |
| | | | 20.00 | |
| | | | 10.25 | |
| | | | 2.00 | |
| | | | 3.00 | |
| | | | 1.00 | |
| | | | 13.37 | |
| | | | 2.00 | |
| | | | 3.00 | |
| | | | 5.60 | |
| | | | 6.00 | |
| | | | 1,623.92* | |

**DAILY BALANCE**

| DEBIT | CREDIT | |
|---|---|---|
| | | * |
| 35.28 | 23.54 | Loans |
| 1,226.29 | 103.25 | New York |
| 214.36 | 1,033.72 | Chicago |
| | 30.04 | Interest and Exchange |
| 85 | 30 | Dividends & C. of Deposit |
| 4,577.12 | 6,685.38 | Drafts & Deposits |
| 7,389.04 | 2,422.82 | Cash |
| | 71.89 | Other Bank Items |
| 15,370.94 | 15,370.94* | TOTAL |

**TODAY'S CASH**

| | |
|---|---|
| | * |
| 2,587.50 | Gold in Vault |
| 20.00 | Gold in Till |
| 2,000.00 | Silver Dollars in Vault |
| 1,781.00 | Silver Dollars in Till |
| 500.00 | Silver Halves in Vault |
| 60.00 | Silver " " in Till |
| 60.00 | Half Dollars in Vault |
| 15.50 | Half " " in Till |
| 120.00 | Quarters in Vault |
| 19.50 | Quarters in Till |
| 65.00 | Dimes in Vault |
| 22.00 | Dimes in Till |
| 25.00 | Pennies in Vault |
| 5.49 | Pennies in Till |
| 108.05 | Other Items |
| 7,389.04* | |

DAILY BANK BALANCE.
Yesterday's and today's balances tabulated at same time.





## Daily Balance Sheet of COOK & VENCILL, BANKERS.

Galt, Missouri, Sept 6 1897

| CHECKS | | DEBIT | | CREDIT | DEPOSITS |
|---|---|---|---|---|---|
| * | 1,623.92* | | | | * |
| 28.00 | 5.00 | 35.28 | Loans | 23.54 | 53.31 |
| 5.00 | 19.60 | | | | 53.51 |
| 103.40 | 3.00 | 1,226.29 | New York | 103.25 | 1,254.00 |
| 3.13 | 5.00 | | | | 5.00 |
| 22.40 | 5.00 | | | | 77.80 |
| 225.00 | 150.00 | | | | 120.00 |
| 2.00 | 4.00 | 214.36 | Chicago | 1,033.72 | 345.04 |
| 3.28 | 1.50 | | | | 20.00 |
| 160.00 | 5.00 | | | | 312.00 |
| 5.00 | 20.00 | | | | 6.00 |
| 5.75 | 100.00 | 193.70 | St. Louis | 124.09 | 7.00 |
| 2.29 | 10.00 | | | | 3.85 |
| 160.00 | 100.00 | | | | 39.25 |
| 2.08 | 1,020.00 | 4,577.12 | Kansas City | 6,685.38 | 200.00 |
| 3.00 | 10.00 | | | | 20.00 |
| 3.50 | 19.60 | | | | 402.53 |
| 181.20 | 20.10 | | | | 259.46 |
| 19.65 | 54.00 | | | | 49.94 |
| 5.00 | 31.00 | | Quincy | | 5.00 |
| 2.40 | 40.00 | | | | 3.00 |
| 5.75 | 503.00 | | | | 577.59 |
| 4.50 | 203.00 | | Tieman | | 111.00 |
| 2.87 | 43.00 | | | | 300.00 |
| 3.22 | 76.00 | | | | 700.00 |
| 3.30 | 44.60 | | Collections | | 530.50 |
| 3.64 | 53.80 | | | | 529.50 |
| 4.25 | 443.00 | | Expense | | 100.00 |
| 4.45 | 32.00 | | | | 20.00 |
| 5.00 | 60.00 | | | | 24.00 |
| 11.05 | 7.00 | | | | 160.10 |
| 11.68 | | | Interest and Exchange | 30.04 | |
| 44.00 | 4,577.12* | | | | 6,685.38* |
| 8.20 | | | | | |
| 25.00 | | | | | |
| 2.30 | | | Demand Certificate of Deposit | 30 | |
| 5.00 | | | | | |
| 101.23 | | | | | |
| 4.00 | | 4,577.12 | Total Checks and Deposits | 6,685.38 | |
| 25.00 | | 2,587.50 | Cash | 72.50 | |
| 111.00 | | 7,389.04 | Total Cash Items | 7,389.04 | |
| 42.51 | | | Long or Short | | |
| 2.60 | | | | | |
| 5.00 | | | | | |
| 2.20 | | | | | |
| 5.00 | | | | | |
| 18.25 | | | | | |
| 28.00 | | | | | |
| 100.00 | | | | | |
| 5.00 | | | | | |
| 12.00 | | 20,513.64 | Total | 20,513.64 | |
| 1.35 | | | | | |
| 4.00 | | 2,587.50 | Gold in Vault | | |
| 4.40 | | 20.00 | " " Till | 72.50 | |
| 10.00 | | | | | |
| 12.00 | | 2000 | Currency in Vault | | |
| 3.55 | | 1781 | " " Till | 30 | |
| 100.00 | | 500 | Silver Dollars in Vault | 5 | |
| 25.00 | | | | | |
| 6.87 | | | | | |
| 3.66 | | 60 | " " " Till | 3.44 | |
| 23.44 | | | | | |
| 70.00 | | 60 | Half " " Vault | 60 | |
| 3.75 | | | | | |
| 10.00 | | 15.50 | " " " Till | 50 | |
| 19.60 | | | | | |
| 20.00 | | 120 | Quarter " " Vault | 30 | |
| 10.25 | | 19.50 | " " " Till | 3.50 | |
| 2.00 | | | | | |
| 3.00 | | 65 | Dimes in Vault | | |
| 1.00 | | | | | |
| 13.37 | | 22 | Nickels in Vault | | |
| 2.00 | | | | | |
| 3.00 | | 22 | Pennies in Vault | | |
| 5.60 | | | | | |
| 6.00 | | 5.49 | Nickels, Dimes and Pennies in Till | | |
| 1,623.92* | | | | | |
| | | 7,389.04 | | 7,389.04 | |

DAILY BANK BALANCE.

**Daily Bank Balance and Ledger Proof Sheet**

| | | Ledger Balances | | | |
|---|---|---|---|---|---|
| | Deposits | | Yesterday's | Checks | |
| | 5331 | 15331 | 24324 | 2800 | 162392 |
| | 5351 | 25332 | 34567 | 500 | 500 |
| | 1,25400 | 1,24500 | 1,02050 | 10340 | 1960 |
| | 500 | 5600 | 6501 | 313 | 300 |
| | 7780 | 7785 | 7878 | 2240 | 500 |
| | 12000 | 12103 | 22034 | 22500 | 500 |
| | 34504 | 34565 | 35400 | 200 | 1500 |
| | 2000 | 2100 | 4100 | 128 | 400 |
| | 31200 | 31030 | 45070 | 1600 | 150 |
| | 600 | 601 | 6600 | 500 | 500 |
| | 700 | 700 | 803 | 575 | 2000 |
| | 385 | 385 | 500 | 229 | 10000 |
| | 3925 | 3926 | 14926 | 1600 | 1000 |
| | 20000 | 20100 | 10405 | 208 | 10000 |
| | 2000 | 3407 | 4300 | 300 | 102000 |
| | 40253 | 40635 | 40000 | 350 | 1000 |
| | 25946 | 25940 | 26776 | 18120 | 1960 |
| | 4994 | 4993 | 5990 | 1965 | 2010 |
| | 500 | 245 | 445 | 500 | 5400 |
| | 300 | 1300 | 2600 | 240 | 3100 |
| | 57759 | 57459 | 4,50600 | 575 | 4000 |
| | 11100 | 21103 | 70000 | 450 | 50300 |
| | 30000 | 30600 | 54034 | 287 | 20300 |
| | 70000 | 70000 | 10678 | 322 | 4300 |
| | 53050 | 53086 | 54506 | 330 | 7600 |
| | 52950 | 35987 | 70000 | 364 | 4460 |
| | 10000 | 10456 | 34600 | 425 | 5380 |
| | 20000 | 30000 | 44403 | 445 | 44300 |
| | 24000 | 24057 | 2345 | 500 | 3200 |
| | 16010 | 16110 | 5435 | 1105 | 6000 |
| | | 16330 | 24587 | 1168 | 700 |
| | 6,68538 | 4,24000 | 1,01100 | 4400 | 4,57712 |
| | | 2100 | 10401 | 820 | |
| | | 1356 | 36090 | 2500 | |
| | | 11,53222 | 13,64048 | 230 | |
| | | 6,68538 Deposits | Checks 4,57712 | 500 | |
| | | 18,21760 | 18,21760 | 10123 | |
| | | | | 400 | |
| | | | | 2500 | |
| | | | | 11100 | |
| | | | | 4251 | |
| | | | | 260 | |
| | | | | 500 | |
| | | | | 220 | |
| | | | | 500 | |
| | | | | 1825 | |
| | | | | 2800 | |
| | | | | 10000 | |
| | | | | 500 | |
| | | | | 1200 | |
| | | | | 135 | |
| | | | | 400 | |
| | | | | 440 | |
| | | | | 1000 | |
| | | | | 1200 | |
| | | | | 355 | |
| | | | | 10000 | |
| | | | | 2500 | |
| | | | | 687 | |
| | | | | 366 | |
| | | | | 2344 | |
| | | | | 7000 | |
| | | | | 375 | |
| | | | | 1000 | |
| | | | | 1960 | |
| | | | | 2000 | |
| | | | | 1025 | |
| | | | | 200 | |
| | | | | 300 | |
| | | | | 100 | |
| | | | | 1337 | |
| | | | | 200 | |
| | | | | 300 | |
| | | | | 560 | |
| | | | | 600 | |
| | | | | 162392 | |

| Daily Balance | | |
|---|---|---|
| Debit | | Credit |
| 3528 | Loans | 2354 |
| 1,22629 | New York | 10325 |
| 21421 6 | Chicago | 103372 |
| | Collections | |
| | Expense | |
| | Interest and Exchange | 3004 |
| 85 | Dividend Certificates of Deposit | 30 |
| 4,57712 | Total Checks and Deposits | 6,68538 |
| 7,28099 | Cash | 7,42282 |
| 10805 | Total Cash Items | 7189 |
| 15,37094 | TOTAL | 15,37094 |

| Today's Cash | | |
|---|---|---|
| | | Cash Items |
| 258750 | Gold in Vault | 7780 |
| 2000 | " " Till | 200 |
| 200000 | Currency in Vault | 1000 |
| 178100 | " " Till | 100 |
| 50000 | Silver Dollars in Vault | 244 |
| 6000 | " " " Till | 665 |
| 6000 | Half " " Vault | 200 |
| 1550 | " " " Till | 76 |
| 12000 | Quarters " " Vault | 340 |
| 1950 | " " " Till | |
| 5500 | Dimes " Vault | |
| 2200 | Nickels " " | |
| 2500 | Pennies " " | |
| 549 | Nickels, Diamond Pennies in Till | |
| 7,28099 | TOTAL | 10805 |

DAILY BANK BALANCE.





PAY ROLL.

The machine is further used in connection with pay rolls of large mercantile and manufacturing concerns, as well as railroads, etc.

The old way of making up a pay roll by writing down all the names and amounts by hand and afterwards footing and checking back the amounts mentally, takes a great amount of time unnecessarily.

When the work is done by hand there is not only more time consumed, but in checking back item by item there is liability to error. The work is accurately done and the time required to do it is diminished when the amounts are added and listed on the machine.

The workmen's time and rates are extended on the clock or time cards, and the amounts are then added and listed on a pay roll slip or sheet, as the case may be. The time cards are turned over, one by one, like checks, and the workman's number and amount of earnings are entered on a pay roll sheet. The Split and Normal machine lists the numbers and adds and lists the amounts at one operation.

The listing itself is done by the machine in about one-fourth the time required to do it by hand and the totals are taken both of the number column and the amount column simply by pressing the total button and pulling the handle. The total of the amount column will indicate the amount of money necessary to pay off the men, and the total of the number column will serve as a check, which is used to advantage later on. Figure reproduced below will give an idea of how a pay roll looks when it comes from the machine.

| Numbers | Amounts $ * |
|---|---|
| 1235 | 22.45 |
| 1246 | 18.50 |
| 1247 | 19.45 |
| 1248 | 22.43 |
| 1249 | 13.56 |
| 1250 | 25.00 |
| 1251 | 23.55 |
| 1252 | 22.75 |
| 9988 | 167.60 * |

As soon as the numbers and amounts have been taken from the time cards and added and listed on the pay roll sheets it is desired to print the workman's numbers and amounts on the pay envelopes. If this is done by hand, it is necessary to add the amounts afterwards and also check back the numbers in order to ascertain whether the correct amounts are opposite their respective numbers. With the machine in use, neither of these pro-

**American Steel & Wire Co.**

PAY ROLL.

_____ *Works*

*Month* _____ *190*

| CHECK No. | AMOUNT |
|---|---|
| Forward, | * |
| 1 | 56 06 |
| 2 | 45 04 |
| 3 | 34 00 |
| 4 | 12 50 |
| 5 | 15 68 |
| 6 | 12 35 |
| 7 | 12 50 |
| 8 | 12 60 |
| 9 | 15 70 |
| 10 | 13 90 |
| 1 | 10 99 |
| 2 | 32 10 0 |
| 3 | 5 67 |
| 1 | 34 06 |
| 2 | 45 07 |
| 3 | 56 08 |
| 4 | 24 03 |
| 5 | 5 43 |
| 6 | 65 60 |
| 7 | 34 07 |
| 8 | 23 50 |
| 9 | 54 50 |
| 00 | 23 00 |
| | 434346* |
| Forward | |
| | |
| | |
|

do the work is just about one-fourth what is required when the hand and mental method is used.

The reproduced fac-simile of a day labor sheet shows the daily record of nine workmen for one week.

A sheet similar to the one shown in the reproduction is inserted in the machine carriage, and the first two items opposite "Number" and "Rate"

JOHN JONES & CO.
PITTSBURG, PA.

**Labor Cost by Jobs, Showing Hours and Amounts**

| Number | 234 | | 236 | | 238 | | 240 | |
|---|---|---|---|---|---|---|---|---|
| | * | | * | | * | | * | |
| 10½ | 2.10 | 10 | 1.60 | 13½ | 3.65 | 10½ | 2.73 | |
| 8¼ | 1.65 | 9¼ | 1.48 | 11¼ | 3.04 | 12¾ | 3.32 | |
| 16½ | 3.30 | 13 | 2.08 | 8¾ | 2.36 | 10½ | 1.26 | |
| 8¾ | 1.93 | 7½ | 1.20 | 9½ | 2.57 | 10 | 1.20 | |
| 12½ | 2.75 | 11¾ | 1.41 | 8½ | 2.55 | 13 | 1.56 | |
| 10 | 2.20 | 10½ | 1.26 | 13¾ | 3.98 | 7¾ | 1.71 | |
| 11½ | 2.76 | 9¼ | 1.11 | 11½ | 3.45 | | | |
| 15 | 1.50 | 13 | 1.56 | | | 64½ | 11.78* | |
| 12½ | 1.50 | 14⅛ | 3.71 | 76¼ | 21.60* | | | |
| 8½ | 2.55 | 10 | 2.60 | | | | 2.41* | |
| 9¼ | 1.48 | 12¾ | 3.32 | | 2.39* | | * | |
| 8¼ | 1.65 | 11 | 2.86 | | * | 10 | 3.00 | |
| 10 | 3.00 | 10½ | 2.73 | 14 | 3.78 | 8½ | 2.55 | |
| | | 8¼ | 1.65 | 11¼ | 3.04 | 7½ | 1.20 | |
| 141½ | 28.37* | 9½ | 2.09 | 9½ | 2.57 | 9¼ | 1.48 | |
| | | 10 | 2.20 | 10¼ | 1.03 | 16½ | 3.30 | |
| | 2.35* | 7¾ | 1.71 | 11¼ | 1.13 | 11¾ | 2.35 | |
| | * | 11¼ | 2.48 | 15 | 1.50 | 12½ | 2.75 | |
| 13 | 2.08 | 8¾ | 1.93 | 12½ | 1.50 | | | |
| 9¼ | 1.48 | 12¾ | 3.32 | 10½ | 1.26 | 76 | 16.63* | |
| 7½ | 1.20 | 9½ | .95 | 11¾ | 1.41 | | | |
| 9¾ | 2.93 | | | 13¼ | 3.98 | | 2.42* | |
| 13¼ | 3.98 | 220½ | 43.25 | 10 | 3.00 | | * | |
| 11¾ | 1.41 | | | 12 | 3.60 | 11½ | 3.45 | |
| 12½ | 1.50 | | 2.37* | 11½ | 3.45 | 9¾ | 2.93 | |
| 13 | 1.56 | | * | 7½ | 1.20 | 10 | 3.00 | |
| 10½ | 2.84 | 14 | 3.78 | 13 | 2.08 | 13¼ | 3.98 | |
| 11¼ | 3.04 | 13½ | 3.65 | 9¼ | 1.48 | 12½ | 2.75 | |
| 12½ | 2.00 | 10½ | 2.84 | 12½ | 2.00 | 11¼ | 2.48 | |
| 10 | 1.60 | 8¾ | 2.36 | 11¾ | 2.35 | 8¾ | 1.93 | |
| 12½ | 2.75 | 9½ | 2.57 | 8¼ | 1.65 | 12¼ | 2.94 | |
| 7¾ | 1.71 | 15 | 1.50 | 9¾ | 1.95 | 9¾ | 2.34 | |
| 10 | 2.40 | 11¼ | 1.13 | 9½ | 2.09 | 13¾ | 3.30 | |
| 13¾ | 3.30 | 10¼ | 1.03 | 10 | 2.20 | | | |
| | | | | 7¾ | 1.71 | 112¾ | 29.10* | |
| 178¼ | 35.78* | 92¾ | 18.86* | 12½ | 2.75 | | | |
| | | | | 11¼ | 2.48 | | | |
| | | | | 275¾ | 55.19* | | | |

COST WORK.

are taken from the clock or time card and printed on the sheet with the eliminating button depressed, which prevents the amounts being added.

Then the items "10½" and "2.10" are set into the machine. The 10½ is set into the left hand, or hours and fractions section, and the 2.10 is set into the right hand or amount section, and by one pull of the handle both amounts are added and listed as shown in the reproduced form.

After these items on a workman's clock or time cards have been added and listed, a total is taken which, in the case of the first group of items, shows the total time put in by the workman No. "201" during the week and his earnings at the rate of 20 cents per hour.

The total amount of money earned can be proved by multiplying the total time by the rate per hour. This method of checking the work is easier





and quicker than to go over the items and check them by calling back. It is also a more accurate check because checking is done by an independent process which eliminates the liability of making the same error twice, of which there is a chance when the calling back system is used.

The recapitulation shows the total number of hours for all the workmen and their total earnings.

The foregoing outline of the various uses which have been found for the adding machine and for which it is peculiarly adapted, serves well to indicate its development from the original machine, which was capable of adding and listing amounts on a narrow strip of paper.

The wide carriage, together with the improved mechanism made it possible, not only to tabulate all manner of records on wide shetes, but also to do the work much more quickly than with the earlier slow acting model.

The feature of adding and listing soon developed from the handling of small units to that of compound additions, such as tons and cwts.

### REMITTANCE AND COLLECTION LETTERS.

The preparation of Remittances and Collection letters has also been found to be an item where time and labor can be saved by using the adding machine.

All banks make out remittances and collection letters and since these letters contain a number of amounts with footings, there is a considerable amount of listing and adding to be done in their preparation.

The remittance letter blank is inserted into the machine carriage and the amounts are taken directly from the checks and listed and added in the proper column on the blank. This list can be made in duplicate or triplicate, as desired. When the duplicate system is used the original copy of the letter is sent to the correspondent bank and the duplicate copy is retained by the sending bank. In case the triplicate system is used two copies are sent to the correspondent bank. In case some of the items are protested, they are marked on one of the copies and it is returned to the sending bank. When all items are paid without protest, the letter is returned either unmarked or with a suitable check mark to indicate that each item has been paid.

The machine saves a great amount of time in the preparation of these letters on account of the fact that it not only lists the items quicker than a typewriter, but foots them automatically. After the items have been listed and added by turning the checks over in rotation, the names can be readily filled in opposite their respective amounts on the typewriter by running through the checks again in the same order.

### DEPOSITORS STATEMENT AND BANK BALANCE.

The simple listing and adding of checks led up to the preparation of depositors bank books on an improved sheet, indicating all transactions as shown in figure 1. On one side of the sheet are recorded the various deposits

## HIBERNIA BANK & TRUST CO.

To St. Louis Union Trust Co.

We enclose herewith for Collection and Credit, items aggregating $ 201.06 as listed below:

| Clearing House No. | ENDORSER | AMOUNT | Clearing House No. | ENDORSER | AMOUNT |
|---|---|---|---|---|---|
| 3 | 5 | 7.05 | | | |
| 3 | 8 | 12.85 | | | |
| 3 | 22 | 3.45 | | | |
| 3 | 84 | 3.60 | | | |
| 3 | 6 | 3.90 | | | |
| 3 | 3 | 3.50 | | | |
| 3 | 2 | 4.35 | | | |
| 3 | 4 | 10.25 | | | |
| 32 | 66 | 7.96 | | | |
| 7 | 7 | 10.57 | | | |
| 26 | 35 | 11.13 | | | |
| 32 | 40 | 20.00 | | | |
| 32 | 50 | 31.10 | | | |
| 32 | 66 | 8.00 | | | |
| 11 | 87 | 9.10 | | | |
| 3 | 6 | 13.35 | | | |
| 3 | 6 | 11.50 | | | |
| 3 | 6 | 15.95 | | | |
| 3 | 6 | 13.45 | | | |
| | | 201.06* | | | |





P-44

PLEASE RETURN THIS LETTER WITH YOUR REMITTANCE.

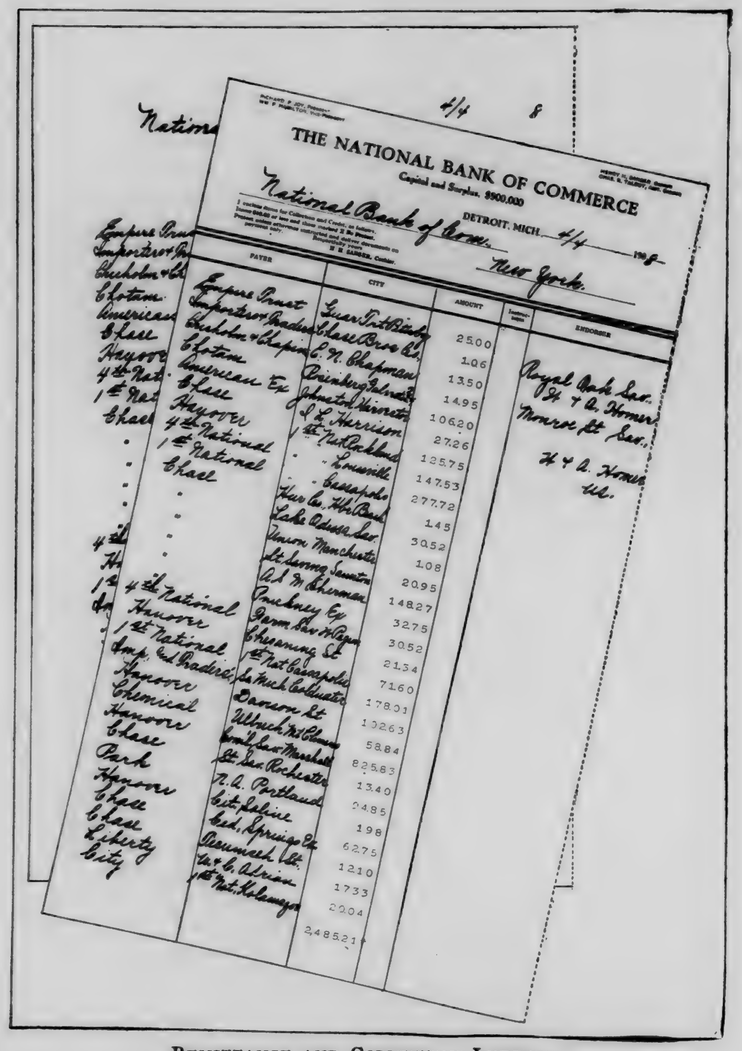
## HIBERNIA BANK & TRUST CO.,
OF NEW ORLEANS

NEW ORLEANS, 4 - 24 1908

Delta Bank & Trust Co.
Yazoo City,
Miss.

We enclose for collection and remittance.
Items $10.00 and under, and items marked X NO PROTEST.

| PAYER | ENDORSER | AMOUNT * | PAYER | ENDORSER | AMOUNT |
|---|---|---|---|---|---|
| 1 | 67 | 312.56 | | | |
| | 66 | 34.78X | | | |
| 4 | 88 | 345.87 | | | |
| | 87 | 65.43 | | | |
| 3 | 12 | 45.79X | | | |
| | 24 | 23.56 | | | |
| 5 | 89 | 678.95 | | | |
| 2 | 56 | 48.79 | | | |
| | 7 | 212.34X | | | |
| 6 | 66 | 3.76 | | | |
| | 76 | 567.67X | | | |
| | | 2,339.50* | | | |




REMITTANCE AND COLLECTION LETTERS.





and on the other side a list of the checks is given. The deposits are put in with a pen and at the end of the month, when the customer turns in his book to be balanced, the clerk takes the checks drawn by that customer and adds and lists the items in the columns of the bank book sheet provided for that purpose and shown in figure 2.

The statement can also be run off on the paper ribbon, adding and listing the old balance and deposits first and then adding and listing the cancelled checks, but the first method is the more preferable.

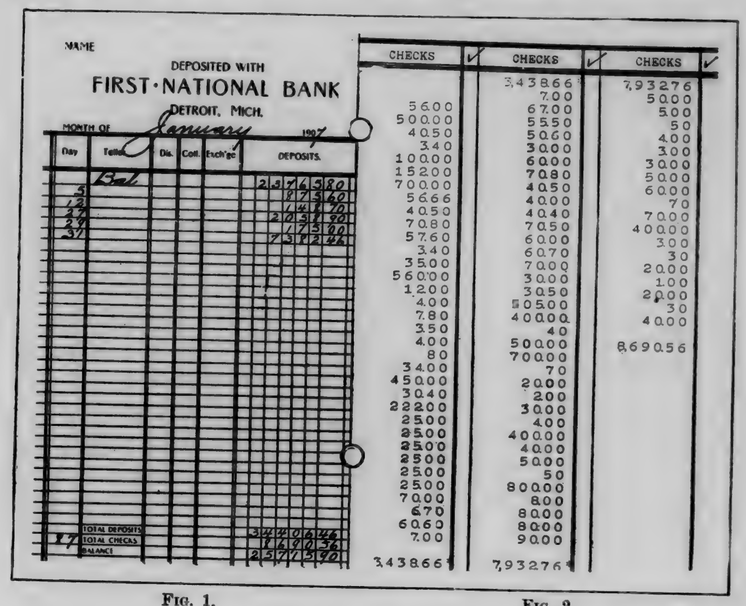



FIG. 1. FIG. 2.

The great advantage of using this system aside from the convenience to the customer, is that the bookkeeper has an extra check on his depositor's ledger balance. Since the totals of the cancelled checks on the bank book are obtained from the checks themselves, it will be seen at once that, if the balances remaining after the cancelled checks are deducted from the deposits, are the same as those recorded in the ledger, the postings to the ledger are absolutely correct, as well as the extensions. This feature of a depositor's balance makes it very valuable to the bookkeeper as an extra check on his work.

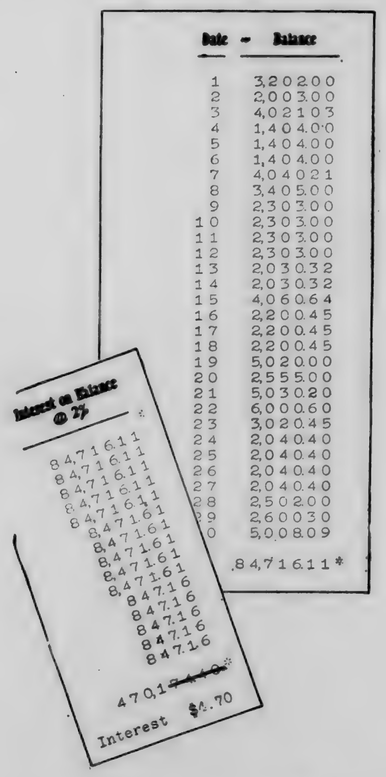
### INTEREST ON DAILY BALANCES.

Another important use of the adding and listing machine in connection with the work of a bank is that of calculating interest on daily balances.

Many banks compute interest on daily balances and the process involves addition as well as multiplication. The addition is necessary to get a total of the daily balances on each account for a month, and the multiplication is necessary in order to compute the interest. The nature of the work is such as to require the computation of interest on a larger number of balances within a limited time.

If the work is done by hand the amounts must be transcribed from the ledger and added afterwards. Then the interest is computed.

It has been found by experience that about two-thirds of the time can be saved on such work by using the adding machine.


Date
Balance
1 3,202.00
2 2,003.00
3 4,021.03
4 1,404.00
5 1,404.00
6 1,404.00
7 4,040.21
8 3,405.00
9 2,303.00
10 2,303.00
11 2,303.00
12 2,303.00
13 2,030.32
14 2,030.32
15 4,060.64
16 2,200.45
17 2,200.45
18 2,200.45
19 5,020.00
20 2,555.00
21 5,030.20
22 6,000.60
23 3,020.45
24 2,040.40
25 2,040.40
26 2,040.40
27 2,040.40
28 2,502.00
29 2,600.30
30 5,008.09
84,716.11*
Interest on Balance @ 2%
84,716.11
84,716.11
84,716.11

trial balance which involves an amount of adding and listing that is commensurate with the size of the business. Every account number and amount must be taken from the ledger books or cards, listed on balance sheets and the amounts footed. In case of the most active accounts it is necessary to leave these over for the last and then rush through the adding and listing with all possible speed in order to reduce to a minimum the complications in striking the balance due to fluctuating accounts.

Since from several days to three or four weeks is required to take off the balances, during which time the active accounts may change considerably, it is desirable to run off the inactive accounts first. The changes that may be necessary in these will be comparatively few, and can be easily made after the adding and listing has been done. The more active accounts are reserved for the last and can be added and listed in a comparatively short time by using the adding machine.

This particular kind of work where numbers and amounts are listed side by side and the amounts added, was one of the influences that brought about an improvement in the machine which, consisted of adding several additional columns of keys and equiping it with a split and normal device. The new machine permitted an operator to list accounts, numbers and also to list and add balances at the same time by setting the device in the proper position.

A sample of the work of the wide machine equipped with the split and normal device is shown page 573, and indicates how the machine is used in connection with savings bank trial balances.

### PROVING EXTENSIONS ON SAVINGS BALANCES.

Savings banks make a further application of the adding machine for proving extensions on savings balances.

In addition to this proof, which verifies the ledger balances, all the balances transcribed to the balance sheet are checked automatically by the same operation that proves the ledger balances.

The method of doing this is simple. Before using the machine, the interest for each account is calculated, set down opposite its respective amount and the extension made.

Then a sheet is inserted in the machine carriage and the balances, without interest, are added and listed and a total of the amounts is printed. The amounts of interest and extended balances are then added and listed on sheets in a similar manner.

After these three sets of ledger amounts have been transcribed to sheets and footed by the machine, it is evident that if the extensions have been made properly and all the amounts have been transcribed to the sheets correctly, the grand total of the amounts and the interest should agree with the grand total of the extended balances.

By this method the ledger extensions are proved beyond question and since the amounts transcribed to the sheets are taken directly from the ledger,





and since the totals on the sheets check with each other as described above, the bookkeeper knows that both his ledger amounts and the amounts on his sheets are correct.

The principle of this proof is illustrated by the following example:

| Balances. $ * | Interest. $ * | Extended Balances. $ * |
|---|---|---|
| 145.00 | .73 | 145.73 |
| 132.50 | .66 | 133.16 |
| 246.25 | 1.23 | 247.48 |
| 75.00 | .38 | 75.38 |
| 100.00 | .50 | 100.50 |
| 698.75 * | 3.50 * | 702.25 * |

When a large split and normal machine is used, the bookkeeper can transcribe two sets of figures to a sheet at one operation and either add and list both columns or list one column and add and list the other.

With this machine, the account numbers and the balances without interest can be taken from the ledger at one operation, printing one account number and one balance side by side at a single pull of the handle. Then the amounts of interest and the extended balances can be added and listed at one operation in a similar manner.

The examples reproduced below show how the four above mentioned columns can be transcribed to sheets at two operations:

| Account Number. $ | Balance. $ * | Interest. $ | Extended Balance. $ * |
|---|---|---|---|
| 25.46 | 145.00 | .73 | 145.73 |
| 25.47 | 132.50 | .66 | 133.16 |
| 25.48 | 246.25 | 1.23 | 247.48 |
| 25.49 | 75.00 | .38 | 75.38 |
| 25.50 | 100.00 | .50 | 100.50 |
| | 698.75 * | 3.50 | 702.25 * |
| | One Operation. | | One Operation. |

There are numberless other ways that the adding and listing machine of today is used to relieve the work in bank accounting. In fact, it plays such an important part in bank work that it is almost indispensible as the ledger and can properly be called the mechanical bank accountant.

### MAKING SALES RECORDS.

The cashier, over-burdened with turning through sales slips and listing items and adding them mentally, soon realized that a machine that could add and list items for a bank deposit could also be used for recapitulating daily

**DAILY SALES REPORT**

L. HASSELL & CO., MOBILE, ALA. — February, 1st to 7th, 1907 — Department Store

| | Mon. Feb. 1st | Tues. Feb. 2nd | Wed. Feb. 3rd | Thurs. Feb. 4th | Fri. Feb. 5th | Sat. Feb. 6th |
|---|---|---|---|---|---|---|
| 1 | 40 20 | 48 63 | 43 45 | 54 40 | 55 00 | 50 40 |
| 2 | 53 64 | 46 50 | 54 00 | 56 55 | 40 | 45 55 |
| 3 | 54 70 | 45 55 | 35 50 | 57 77 | 50 3 | 47 00 |
| 4 | 27 89 | 44 33 | 54 65 | 47 70 | 35 05 | 47 00 |
| 5 | 52 95 | 55 43 | 65 54 | 48 08 | 56 06 | 49 88 |
| 6 | 46 80 | 44 67 | 34 40 | 54 30 | 60 54 | 50 55 |
| 7 | 53 61 | 45 43 | 35 05 | 37 07 | 67 76 | 50 76 |
| 8 | 42 09 | 47 78 | 44 30 | 8 08 | 69 08 | 54 30 |
| 9 | 41 73 | 45 43 | 45 50 | 25 55 | 60 54 | 60 54 |
| 10 | 42 80 | 45 65 | 40 76 | 45 60 | 50 54 | 60 76 |
| 11 | 51 16 | 56 71 | 40 98 | 47 07 | 57 70 | 40 43 |
| 12 | 43 40 | 50 42 | 54 22 | 48 08 | 47 60 | 30 30 |
| 13 | 48 92 | 53 21 | 44 03 | 50 54 | 67 77 | 50 55 |
| 14 | 44 51 | 45 44 | 45 50 | 50 43 | 47 77 | 57 00 |
| 15 | 68 47 | 54 66 | 56 66 | 58 88 | 50 30 | 59 80 |
| 16 | 61 40 | 53 46 | 40 05 | 64 30 | 60 65 | 46 60 |
| 17 | 33 67 | 54 67 | 40 60 | 50 66 | 50 87 | 57 07 |
| 18 | 44 88 | 46 21 | 43 30 | 68 08 | 40 65 | 35 06 |
| 19 | 42 67 | 54 66 | 45 05 | 40 43 | 46 06 | 60 44 |
| 20 | 51 23 | 50 66 | 34 89 | 30 55 | 37 08 | 64 02 |
| 21 | 44 92 | 50 05 | 65 20 | 45 50 | 36 07 | 24 84 |
| 22 | 50 88 | 40 05 | 44 56 | 34 05 | 47 08 | 47 08 |
| 23 | 45 15 | 40 60 | 55 32 | 60 77 | 50 43 | 46 81 |
| 24 | 45 34 | 30 55 | 35 55 | 60 66 | 36 06 | 54 56 |
| 25 | 43 19 | 60 66 | 55 44 | 57 07 | 40 43 | 45 66 |
| 26 | 47 96 | 43 44 | 35 05 | 35 06 | 40 67 | 64 33 |
| 27 | 43 42 | 60 55 | 55 04 | 42 20 | 65 40 | 35 78 |
| 28 | 49 92 | 55 04 | 44 04 | 47 80 | 50 65 | 75 32 |
| 29 | 41 01 | 44 04 | 46 05 | 55 54 | 40 44 | 46 78 |
| 30 | 48 63 | 50 04 | 48 07 | 40 54 | 50 77 | 65 40 |
| 31 | 40 36 | 68 70 | 56 36 | 47 07 | 59 08 | 77 22 |
| 32 | 40 83 | 55 50 | 59 98 | 40 98 | 50 66 | 56 78 |
| 33 | 44 02 | 66 04 | 50 40 | 44 30 | 54 30 | 64 89 |
| 34 | 41 63 | 80 7 | 52 43 | 32 0 | 53 20 | 57 88 |
| 35 | 44 42 | 34 04 | 40 03 | 45 05 | 45 05 | 80 11 |
| 36 | 46 14 | 76 40 | 46 06 | 57 77 | 45 06 | 56 07 |
| 37 | 45 94 | 60 55 | 36 00 | 40 50 | 50 55 | 14 576 |
| 38 | 41 41 | 54 04 | 39 08 | 38 08 | 50 30 | 60 67 |
| 39 | 41 10 | 40 55 | 60 95 | 60 77 | 40 60 | 60 66 |
| 40 | 55 74 | 40 80 | 30 44 | 51 66 | 61 51 | 57 17 |
| | 1,84673 | 1,94921 | 1,85448 | 1,85269 | 1,93476 | 2,14178 |
| | 1,84873 75 | 1,94921 51 | 1,85448 68 | 1,85269 60 | 1,93476 200 | 2,14178 70 |
| Sales Change | 1,84948 | 1,94972 | 1,85516 | 1,85329 | 1,93676 | 2,14248 |
| Total | 1,84751 197 | 1,94868 104 | 1,85450 66 | 1,85200 129 | 1,93570 106 | 2,14138 110 |
| Cash Expense | 1,84948 | 1,94972 | 1,85516 | 1,85329 | 1,93676 | 2,14248 |
| Total | 1,84751 | 1,94868 | 1,85450 | 1,85200 | 1,93570 | 2,14138 |
| Cash Deposit | 1,84700 51 | 1,94800 68 | 1,85390 60 | 1,85000 200 | 1,93500 70 | 2,14000 138 |
| In Drawe | | | | | Total Sales | 11,58165 |

DAILY EXPENSE REPORT

February 1st to 7th, 1908

| | | | | | | |
|---|---|---|---|---|---|---|
| Express 1 02 | Express 39 | Refund 25 | Salary 1 00 | Express 50 | Express 50 |
| " 50 | " 60 | Express 36 | Express 29 | Refund 25 | " 35 |
| " 25 | Soap 5 | Carfare 5 | | Soap 6 | Carfare 10 |
| Carfare 10 | Total 1 04 | Total 66 | Total 1 29 | Carfare 25 | " 10 |
| " 10 | | | | | " 5 |
| Total 1 97 | | | | Total 1 06 | Total 1 10 |

DAILY SALES REPORT.





**WEEKLY SUMMARY OF SALES**

| No. | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | TOTALS |
|---|---|---|---|---|---|---|---|
| 1st | 1,102 20 | 1,135.25 | 1,162 50 | 1,136.55 | 1,191 35 | 1,202.45 | 6,950 30 |
| 2nd | 987 65 | 986.55 | 975.45 | 992.20 | 987.45 | 1,001.25 | 5,930.35 |
| 3rd | 1,365 45 | 1,320.45 | 1,140.55 | 1,009 45 | 986.45 | 1,001 45 | 7,023.80 |
| 4th | 1,400.00 | 1,412.45 | 1,398 45 | 1,375.45 | 1,399.35 | 1,421.35 | 8,407.05 |
| 5th | 1,250.00 | 1,256.55 | 1,282.45 | 1,247 65 | 1,232.50 | 1,282 75 | 7,551.30 |
| | 6,305.30 | 6,111.25 | 5,979.40 | 5,761.30 | 5,797.10 | 5,909.25 | 35,863.60 |

sales, and from this developed a method of handling the records of daily sales by using the adding machine.

The applications of this system involves the listing and adding of a great many small items.

The sales tickets are filed as they come to the Cashier's office, either by departments or by clerks, according to the sheet that is to be prepared first. On the following morning the machine operator puts a sheet in the machine carriage and tabulates the sales items directly from the sales tickets. Each group of items corresponding to any department or clerk is designated by a number or letter at the top of the column of items.

Above form shows a record made out in its simplest form. On a sheet made out after this manner, the clerk's or department's number is

Wm. S. Town & Co., Wholesale Hardware — Monthly Statement of Sales — Month of January

| Jones | | Smith | | Thompson | | Kelly | | Burns | | Briggs | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Check No. | Cost Price | Check No. | Cost Price | Check No. | Cost Price | Check No. | Cost Price | Check No. | Cost Price | Check No. | Cost Price |
| 1 | 1678 | 2 | 2500 | 3 | 1500 | 1 | 1250 | 4 | 1250 | 3 | 2345 |
| 3 | 2250 | 3 | 1250 | 6 | 2500 | 3 | 2255 | 5 | 2345 | 5 | 8500 |
| 4 | 1250 | 4 | 3500 | 12 | 2250 | 5 | 12500 | 8 | 11250 | 6 | 2500 |
| 6 | 3525 | 5 | 4100 | 15 | 12500 | 7 | 3545 | 10 | 1435 | 8 | 4450 |
| 7 | 525 | 6 | 2450 | 20 | 1250 | 9 | 1650 | 11 | 12245 | 10 | 6545 |
| 8 | 450 | 7 | 2300 | 22 | 3345 | 11 | 8250 | 12 | 350 | 11 | 3535 |
| 10 | 1525 | 8 | 1250 | 24 | 11240 | 13 | 2435 | 14 | 9450 | 12 | 5335 |
| 11 | 1250 | 10 | 2200 | 27 | 2250 | 15 | 1555 | 15 | 1315 | 14 | 3300 |
| 12 | 825 | 12 | 3150 | 29 | 4355 | 21 | 2760 | 16 | 11000 | 22 | 11100 |
| 14 | 4150 | 14 | 5600 | 31 | 1750 | 22 | 12145 | 17 | 3450 | 25 | 1050 |
| 16 | 2500 | 16 | 12500 | 32 | 4565 | 24 | 8600 | 21 | 1650 | 31 | 6545 |
| 18 | 5400 | 18 | 7600 | | | 27 | 3330 | 23 | 12150 | | |
| 21 | 250 | 21 | 5505 | | | 29 | 2690 | 24 | 18535 | | |
| 22 | 8350 | 23 | 10000 | | | 31 | 4300 | 25 | 3245 | | |
| 24 | 2150 | 25 | 8800 | | | 32 | 6500 | 26 | 4365 | | |
| 28 | 1500 | 27 | 5100 | | | | | 31 | 4500 | | |
| 30 | 2000 | 28 | 1500 | | | | | | | | |
| | 33618 | | 76900 | | | | 67745 | | 89135 | | |

RECAPITULATION OF SALES MADE BY EACH CLERK.

printed and the items listed in column form below it. The little symbol ♯, is an eliminating sign which indicates that the amount "3" has not entered into the adding mechanism of the machine. It is printed at the same time the number is printed with one lever pull, simply by depressing an eliminating button when the "3" is depressed. The star is printed when the total button is depressed and the lever then added and listed in the usual manner.

| 3♯ |
|---|
| Dep't. |
| .3.20 * |
| 4.12 |
| 11.75 |
| 1ȷ.45 |
| 2.35 |
| 31.87 * |

The simplest form of sales record was not adequate to meet the demand when it was desired to add and list cash and credit sales items side by side.

This necessity was taken care of however, by the improved 15 column machine and the split and normal device which permitted an operator to add and list two columns of items simultaneously with a totaling capacity of 9999999 in one column and 99999999 in the other.

Our next illustrations give an idea of the more elaborate forms of sales record. These illustrate the appearance of a sales record where cash or credit and cost price and selling price are recorded.

| | | Cash. | Credit. | | Cost | Selling |
|---|---|---|---|---|---|---|
| Department | 7♯ | Salesman | 14♯ | Dep't | Price | Price |
| 3.20 | * | 24.20 | 31.25 * | 10 | 3.50 | 4.20 * |
| 1.50 | | 5.20 | 6.50 | 12 | 3.00 | 4.10 |
| | 4.25 | 7.85 | 9.60 | 4 | 3.20 | 5.35 |
| | 2.25 | 7.55 | 7.35 | 7 | 3.2ȷ | 4.35 |
| | 1.25 | 7.55 | 7.35 | 7 | 3.20 | 4.35 |
| 5.00 .. | ..7.75 * | 56.10 | 68.90 * | | 30.15 | 39.30 |

In the case of cash and credit sales, the amounts on the cash tickets are entered in one section of the machine and those on the credit tickets in the other section and a footing made of both sections simultaneously. Monthly recap. shows how the machine can list department numbers at the same time the cost price and selling price are added and listed. All three items are printed with one pull of the lever.

The preparation of the sales sheets is comparatively simple when the machine is used.

The sales tickets are filed as they come to the Cashier's office, either by departments or by clerks, according to the sheet that is to be prepared first.





On the following morning the machine operator puts a sheet in the machine carriage and tabulates the sales items directly from the sales tickets. Each group of items corresponding to any department or clerk is designated by a number or letter at the top of the column of items.

Numerous forms of sales records can be prepared on the machine as per illustrations.

The sales sheets which have been prepared each day, can be filed and used at the end of the week to furnish data for a comparative summary. See illustration.

It will be noticed that the sales for each of the five departments are recorded under the different days of the week and a total of the week's sales printed on the extreme right hand column. All the departments have done a normal business except No. 3, which has fallen below the average. This fact is clearly indicated on the summary. The total amounts of business for each day is indicated by the figures in the bottom row. When forms similar to this are prepared, the machine is set to cross tabulate and the items are added and listed in horizontal rows instead of the regular column form.

Hundreds of commercial houses are today using the adding and listing machine in the capacity outlined above and in addition use it in connection with all forms of bookkeeping work.

### TRIAL BALANCE.

The monthly trial balance is generally dreaded by even the best of bookkeepers, not only on account of the tedious work involved in transcribing all the debits and credits to sheets and making footings, but also because they have visions of burning the midnight oil in order to find some fugitive error which has crept in despite their carefulness.

There are many safeguards against error in trial balances, but there are none that give as great satisfaction to the bookkeeper as one which assures him of accuracy as well as lightens his labor and mental strain.

There are several ways in which the machine can be used for taking off the debits and credits that make up the trial balance. There are three ways of taking off a trial balance with the regular 9 column adding machine.

The first method is to insert a column ruled sheet in the machine carriage and then turn through the ledger, taking off all the debits and adding and listing them in their proper column or columns. When there is a credit to be recorded it is listed in a column for credits but not added. A little symbol ♯, which is printed to the right of an amount, whenever the eliminating button on the machine is depressed in connection with the amount, indicates that the item has not been accumulated. When all the debits and credits have been taken from the ledger, the footing of the debits is printed and then the credits are added on the Burroughs with the carriage thrown back and the total is printed. This method is shown in Figures 1 and 2.

Sales Monday April 23rd Cashiers 5

| 101 | 102 | 103 | 104 | 105 | 106 |
|---|---|---|---|---|---|
| 325 | 100 | 640 | 140 | 5 | 100 |
| 40 | 30 | 5 | 35 | 33 | 25 |
| 25 | 4 | 4 | 51 | 55 | 75 |
| 16 | 53 | 42 | 55 | 5.50 | 80 |
| 75 | 4 | 14 | 60 | 2.00 | 5 |
| 25 | 305 | 53 | 15 | 440 | 250 |
| 25 | 104 | 140 | 5 | 60 | 30.22 |
| 240 | 65 | 320 | 4 | 4 | 140 |
| 150 | 32 | 4 | 255 | 20 | 75 |
| 65 | 55 | 140 | 65 | 100 | 15 |
| 240 | 14 | 20 | 1355 | 330 | 33 |
| 250 | 55 | 440 | 145 | 20 | 304 |
| 25 | 240 | 4330 | 15 | 45 | 50 |
| 15 | 430 | 40 | | 65 | 104 |
| 432 | 205 | 106 | 2201* | 880 | 1 |
| 5030 | 25 | 75 | | 660 | 25 |
| 140 | | 47 | | 430 | 535 |
| 24 | 17.21* | 65 | 110* | 230 | 140 |
| 2222 | | 640 | | | 14 |
| | | 35 | 5 | 6127 | 25 |
| 9364* | 108* | | 25 | | 65 |
| | | 7160* | 20 | | 240 |
| | 65 | | 140 | 111* | 104 |
| 107* | 506 | | 3035 | | |
| | 340 | 109* | 1450 | 98 | 54.27* |
| 45 | 130 | | 24 | 78 | |
| 25 | 303 | 50 | 245 | 65 | |
| 240 | 444 | 5 | 75 | 440 | 112* |
| 402 | 55 | 2 | 240 | 20 | |
| 24 | 14 | 55 | 50 | 40 | |
| 36 | 5 | 5 | 530 | 10 | 350 |
| 86 | 134 | 3 | 24 | 66 | 45 |
| 5067 | 303 | 34 | 640 | 440 | 63 |
| 304 | 204 | 45 | | 220 | 14 |
| 1150 | 55 | 350 | 6503* | 4040 | 30 |
| 2022 | 26 | 540 | | 44 | 66 |
| 15 | 330 | 150 | | 1 | 74 |
| 5 | 2240 | 5 | 116* | | 650 |
| 2 | 1400 | 2000 | | 5562* | 144 |
| 133 | | 640 | 350 | | 5 |
| 55 | 6554* | 6 | 244 | | 640 |
| | | | 5 | 117* | 14 |
| 8611* | | 3890* | 4 | | 233 |
| | 114* | | 25 | 880 | 8 |
| | | 5 | 3 | 200 | 15 |
| 113* | 500 | 115* | 60 | 1010 | 75 |
| | 250 | | 14 | 34 | 680 |
| 55 | 65 | 344 | 203 | 504 | 907 |
| 45 | 40 | 55 | 140 | 6 | 407 |
| 350 | 35 | 344 | 2204 | 67 | |
| 3450 | 250 | 23 | 640 | 23 | 4417* |
| 1200 | 14 | 45 | 250 | 14 | |
| 34 | 33 | 58 | 75 | 5 | |
| 65 | 400 | 98 | 25 | 5 | 118* |
| 670 | 3566 | 79 | 14 | 2030 | |
| 870 | 140 | 77 | 20 | 344 | 224 |
| 930 | 5 | 56 | | 556 | 402 |
| 23 | 5 | 45 | 4276* | | 145 |
| 36 | 64 | 245 | | 5676* | 446 |
| 10 | | 250 | | | 503 |
| 140 | 3367* | 115 | 121* | | 1240 |
| 420 | | 110 | | 122* | 155 |
| | | 225 | 300 | | 550 |
| 8278* | 120* | 50 | 104 | 506 | 500 |
| | | 40 | 40 | 344 | 450 |
| | 115 | 75 | 75 | 103 | 775 |
| 119* | 35 | 50 | 25 | 302 | 1000 |
| | 64 | 25 | 10 | 30 | 1235 |
| 340 | 24 | 49 | 310 | 60 | |
| 102 | 52 | 98 | 100 | 25 | 7625* |
| 33 | 5 | 135 | 400 | 40 | |
| 13 | 44 | 66 | 20 | 78 | 123* |
| 5550 | 430 | 46 | 30 | 89 | |
| | 650 | 134 | 5 | 1000 | 234 |
| 6038* | 356 | 125 | 25 | 2330 | 42 |
| | 250 | 50 | 30 | 450 | 230 |
| | 5 | 50 | 140 | 23 | 46 |
| | 75 | 30 | 1 | | 145 |
| | 777 | 25 | 50 | 5378* | 240 |
| | 507 | 115 | 4 | | 500 |
| | 250 | 14 | 404 | | 1000 |
| | 25 | 18 | 86 | | 46 |
| | 42 | 167 | 36 | | 98 |
| | 5 | 17 | 53 | | |
| | 340 | 18 | 4 | | 2581* |
| | | 135 | 55 | | |
| | 4051* | | | | |
| | | 3701* | 2307* | | |

SALES RECAPITULATION.





D A. FRANK & CO.
DRY GOODS, WRAPS AND CARPETS
CORNER CENTER AND PROSPECT STS.
MARION, OHIO

CASH SALES (DEPARTMENTAL) DATE Sept 1st, 1906

| | | | 25E | 25F | | | |
|---|---|---|---|---|---|---|---|
| | 100A | 150 | 50 | 100 | 2007 | | |
| | 50 | 20 | 100 | 98 | 500 | | |
| | 25 | 10 | 10 | 50 | 400 | | |
| | 100 | 25 | 50 | 48 | 600 | | |
| | 200 | 118 | 67 | 100 | 200 | | |
| | 150 | 289 | 50 | 45 | 800 | | |
| | 300 | 112 | 50 | 70 | 300 | | |
| | 200 | 100 | 56 | 435 | 300 | | |
| | 100 | 268 | 25 | 150 | 125 | | |
| | 8 | 100 | 15 | 300 | 98 | | |
| | 5 | 325 | 50 | 25 | 100 | | |
| | 25 | 400 | 250 | 10 | 100 | | |
| | 400 | 340 | 50 | 46 | 250 | | |
| | 450 | 289 | 10 | 75 | 300 | | |
| | 10 | 85 | 10 | 96 | 85 | | |
| | 5 | 250 | 32 | 10 | 300 | | |
| | 20 | 125 | 75 | 56 | 50 | | |
| | 147 | 50 | 250 | 45 | 500 | | |
| | 5 | 65 | 225 | 60 | 700 | | |
| | 40 | 75 | 10 | 30 | 450 | | |
| | 94 | 89 | 55 | 50 | 400 | | |
| | 77 | 25 | 25 | 98 | 1000 | | |
| | 5 | 35 | 57 | 100 | 889 | | |
| | 5 | 93 | 16 | 75 | 2250 | | |
| | 5 | 37 | 25 | 85 | 650 | | |
| | 5 | 25 | 350 | 50 | 350 | | |
| | 1250 | | 475 | 235 | 175 | | |
| | 1100 | 3316* | 25 | 95 | 75 | | |
| | 155 | | 10 | 60 | 1200 | | |
| | 266 | | 35 | 100 | 1375 | | |
| | 100 | | 25 | 20 | 940 | | |
| | 50 | 100 | 45 | 40 | 550 | | |
| | 70 | 24 | 54 | 115 | 95 | | |
| | 65 | 15 | 320 | 45 | 100 | | |
| | 50 | 10 | 25 | 230 | 100 | | |
| | 185 | 70 | 35 | 70 | 250 | | |
| | | 18 | 10 | 43 | 125 | | |
| | 5819* | 45 | 10 | 325 | | | |
| | | 75 | 12 | | 17382* | | |
| | | 50 | 34 | 8531* | | | |
| | | 40 | | | | | |
| | 803 | 100 | 4480* | | | | |
| | 18 | 50 | | | 2401 | | |
| | 25 | 100 | | 6H | 325 | | |
| | 100 | 35 | | 38 | 500 | | |
| | 10 | 575 | 1005 | 10 | 750 | | |
| | 8 | 90 | 100 | 72 | 900 | | |
| | 165 | 40 | 80 | 20 | 1000 | | |
| | 20 | 300 | 38 | 15 | 1150 | | |
| | 27 | 39 | 38 | 169 | 1250 | | |
| | 280 | 75 | 198 | 78 | 660 | | |
| | 100 | 58 | 600 | 39 | 900 | | |
| | 105 | 75 | 450 | 60 | 1000 | | |
| | 70 | 80 | 200 | 39 | 1250 | | |
| | 138 | 65 | 25 | 107 | 500 | | |
| | 100 | 38 | 58 | 150 | 575 | | |
| | 180 | 25 | 250 | 125 | 900 | | |
| | 68 | 25 | 148 | 50 | 875 | | |
| | 248 | 15 | 58 | 35 | 450 | | |
| | 200 | 225 | 400 | 400 | 875 | | |
| | 350 | | 80 | 125 | 450 | | |
| | 498 | 2370* | 95 | 500 | 500 | | |
| | 550 | | 250 | 250 | 775 | TOTAL SALES | |
| | 100 | | 100 | 335 | 235 | | |
| | 100 | | 100 | 100 | 150 | | |
| | 100 | 303 | 98 | 10 | | | 5819A |
| | 250 | 125 | 75 | 55 | 1621O* | | 6240B |
| | 100 | 50 | 50 | 22 | | | 3316C |
| | 100 | 50 | 45 | 10 | | | 2370D |
| | 100 | 298 | 25 | 25 | | | 4480E |
| | 100 | 50 | 30 | 20 | | | 8531F |
| | 50 | 50 | 100 | 60 | | | 3394H |
| | 550 | 75 | 200 | 90 | | | 17382I |
| | 100 | 75 | 60 | 35 | | | 1621OL |
| | 200 | 100 | 10 | 92 | | | |
| | 50 | 75 | 10 | | | | 6774Z* |
| | | 25 | 12 | 50 | | | |
| | 6240* | 50 | 60 | 100 | | | |
| | | 149 | 25 | 95 | | | |
| | | 50 | 275 | 40 | | | |
| | | 75 | 148 | 15 | | | |
| | | 50 | 150 | 24 | | | |
| | | | 100 | | | | |
| | | | | 3394* | | | |

SALES RECAPITULATION.

| Debits. | | Credits. | |
|---|---|---|---|
| $ | * | $ | |
| 22.50 | | | |
| 12.50 | | | |
| 3.50 | | 12.50 | # |
| 12.40 | | | |
| | | 10.00 | # |
| 6.50 | | | |
| | | 3.75 | # |
| 57.40 | * | 26.25 | * |

FIG. 1.

| Debits. | | Credits. | |
|---|---|---|---|
| $ | * | $ | * |
| 2.45 | | 10.00 | |
| 13.50 | | 5.00 | |
| 4.45 | | 4.50 | |
| 6.55 | | 3.75 | |
| 15.50 | | | |
| 15.00 | | | |
| 10.00 | | | |
| 4.75 | | | |
| 72.20 | * | 23.25 | * |

FIG. 1.

| Debits and Credits. | | |
|---|---|---|
| $ | * | |
| 3.50 | | |
| 13.50 | | |
| 6.50 | | |
| 4.55 | # | |
| 5.55 | # | |
| 12.50 | | |
| 6.50 | | |
| 7.50 | # | |
| Debit 42.50 | * | |
| Credit 17.60 | * | |

FIG. 2.

A second method consists of taking off the debits and credits, somewhat after the manner outlined in Figure 2. Sample Form, except in this case the credits, which are usually comparatively few, are listed into the column of debits with the eliminating button depressed to prevent addition. When the transcribing has been completed, it is an easy matter to pick out the amounts opposite the eliminating symbol,* and add these on the machine with the carriage thrown back and print the total, as shown in the illustration.





TRIAL BALANCE. BITTNER, HUNSICKER & CO., ALLENTOWN, PA.

MONTH OF March 1909

| | DEBIT | CREDIT | DEBIT | CREDIT | DEBIT | CREDIT |
|---|---|---|---|---|---|---|
| | 500.00 | | 11,739.91 | | 31,352.66 | |
| | 544.00 | | 404.30 | | 606.40 | |
| | 544.00 | | 76.40 | | 404.30 | |
| | 50.00 | | 44.00 | | 700.50 | |
| | 1,000.00 | | 230.00 | | 100.00 | |
| | 65.30 | | 45.00 | | 150.40 | |
| | 7.60 | | | 7,055.30* | 5.00 | |
| | 555.30 | | 60.40 | | 70.50 | |
| | | 50.00* | 87.75 | | 22.00 | |
| | 706.40 | | 50.00 | | 100.00 | |
| | 26.40 | | 7.00 | | 50.40 | |
| | 300.55 | | 400.00 | | 70.40 | |
| | 377.60 | | 606.40 | | 23.30 | |
| | 294.40 | | 403.00 | | 25.05 | |
| | 260.50 | | 60.40 | | | 3,054.60* |
| | 65.30 | | 60.40 | | 65.30 | |
| | 43.20 | | 1,004.40 | | | 65.50* |
| | 46.05 | | 1,056.00 | | 70.30 | |
| | 130.00 | | 503.00 | | 36.66 | |
| | 50.33 | | 76.50 | | 220.00 | |
| | 66.40 | | 400.40 | | 60.30 | |
| | 255.00 | | 275.00 | | 40.30 | |
| | 270.60 | | 208.60 | | | 208.67* |
| | 403.00 | | 2,250.40 | | 601.60 | |
| | 65.50 | | 3.00 | | 505.40 | |
| | 54.30 | | 66.40 | | 20.00 | |
| | | 23,000.00* | 706.50 | | 76.40 | |
| | 4.00 | | 505.40 | | 20.00 | |
| | 200.00 | | | 55.00* | 6.00 | |
| | 250.40 | | | 400.40* | 60.90 | |
| | 60.30 | | 506.00 | | | |
| | 404.20 | | 506.50 | | 36,154.07* | 36,154.07* |
| | 103.00 | | 509.30 | | | |
| | 160.50 | | 570.70 | | | |
| | 50.42 | | 54.00 | | | |
| | 40.00 | | 6.00 | | | |
| | 65.40 | | 4.30 | | | |
| | 355.00 | | 1.50 | | | |
| | | 605.30* | 10.40 | | | |
| | 360.66 | | 60 | | | |
| | 303.20 | | 553.00 | | | |
| | 65.30 | | 44.200 | | | |
| | | 605.30* | 1,000.00 | | | |
| | 33.00 | | 309.40 | | | |
| | 30.60 | | 606.40 | | | |
| | 223.00 | | 707.50 | | | |
| | 234.40 | | | 54.00* | | |
| | 65.40 | | 240.00 | | | |
| | | 1,000.00* | 54.20 | | | |
| | 502.00 | | 66.40 | | | |
| | 560.50 | | 290.00 | | | |
| | 220.00 | | 250.40 | | | |
| | 250.50 | | 23.00 | | | |
| | 606.40 | | 20.50 | | | |
| | 11,739.91* | | 31,352.66* | | | |

## TRIAL BALANCE

| | DEBITS | CREDITS | DEBITS | CREDITS | DEBITS | CREDITS |
|---|---|---|---|---|---|---|
| | - | - | 1,606973 | 19,88637 | 47,85851 | 57,22081 |
| | 66554 | 45607 | 6640 | 5000 | 55053 | 35050 |
| | 6055 | 3,05555 | 70300 | 3400 | 66053 | 35050 |
| | 5053 | 77030 | 1540 | 4560 | 60530 | 30450 |
| | 55553 | 40644 | 3500 | 450 | 6053 | 3550 |
| | 45400 | 14050 | 2440 | 1200 | 5550 | 3555 |
| | 3455 | 13,00055 | 56060 | 3550 | 4660 | 35060 |
| | 34532 | 2050 | 35500 | 4600 | 150500 | 205770 |
| | 5040 | 4550 | 3500 | 455 | 70550 | 4670 |
| | 66540 | 4560 | 5043 | 4666 | 14800 | 7503 |
| | 54300 | 35050 | 43790 | 1300 | 7050 | 14550 |
| | 66400 | 35506 | 97760 | 90776 | 120,4050 | 45600 |
| | 764 | 44666 | 9750 | 5179 | 56600 | 56070 |
| | 7640 | 556 | 88750 | 1378 | 806400 | 57070 |
| | 665400 | 4500 | 96600 | 4057 | 75300 | 466 |
| | 65000 | 6531 | 18000 | 3400 | | 5675 |
| | 6000 | 5570 | 27705 | 1269 | | 7,59312 |
| | 500 | | 5053 | 4660 | 500000 | |
| | 6640 | 525 | 66530 | 456 | 60500 | 3550 |
| | 6050 | 440 | 6653 | 4606 | 144400 | 44560 |
| | 6540 | 4560 | 50000 | 4566 | 40320 | 35060 |
| | | 4500 | 60530 | 3505 | 165500 | 80040 |
| | 6540 | 4550 | 60530 | 4600 | 170450 | 4660 |
| | 5000 | | 60000 | | 16500 | 5600 |
| | 6540 | | 60530 | 4506 | 4742 | 6555 |
| | | 4606 | 60640 | 4660 | 46700 | 4600 |
| | 65400 | 4566 | 6653 | 4560 | 24400 | 575 |
| | 8000 | 455 | 60540 | 406 | 6000 | 1225 |
| | 70640 | 455 | 70640 | 4506 | 64400 | 4660 |
| | 7050 | 431 | 13040 | 2450 | 30530 | 9,36375 |
| | 760 | 4060 | 13040 | 8740 | | |
| | 70640 | 555 | 13046 | 6890 | 99,98942 | 99,98942 |
| | 760 | | 9500 | 5707 | | |
| | 5553 | | 70640 | 577 | | |
| | 6040 | | 6530 | 4056 | | |
| | 6530 | 466 | 5440 | 40660 | | |
| | 60500 | 4506 | 104,5006 | 35,06000 | | |
| | 10760 | 566 | 60530 | 4060 | | |
| | 12220 | 2340 | 50430 | 4506 | | |
| | 11303 | 2304 | 500430 | 2405 | | |
| | 3500 | 4606 | 70640 | 4506 | | |
| | 3050 | 4506 | 50430 | 3505 | | |
| | 44450 | 5609 | 6053 | 4566 | | |
| | 12300 | 1330 | 6054 | 30560 | | |
| | 12411 | 1260 | 6500 | 500 | | |
| | 3550 | 456 | 66504 | 4660 | | |
| | 60 | 4505 | 50000 | 4525 | | |
| | 1,606973 | 1,988637 | 4,785851 | 5,722081 | | |





| OLD BALANCES | NEW BALANCES | OLD BALANCES | NEW BALANCES | OLD BALANCES | NEW BALANCES | |
|---|---|---|---|---|---|---|
| 21877 | 24396 | 195342 | 217272 | 353775 | 382521 | |
| 2550 | | 350 | | 12260 | 12561 | |
| 3235 | 3450 | 2250 | 2500 | 1825 | 2262 | |
| 1155 | 1500 | | 565 | | 1400 | |
| 5000 | 2500 | 3576 | 5000 | 12140 | | |
| 2265 | 2500 | 500 | | 12265 | 14675 | |
| 21165 | 23575 | 3378 | 5011 | | 8276 | |
| 3376 | | 7500 | 2522 | | 3755 | |
| 4576 | | 5066 | 2250 | 12145 | 15000 | |
| 1286 | 1500 | | 1500 | 21145 | | |
| 2356 | 3350 | | 5000 | 12344 | 12500 | |
| 12250 | 13255 | 6250 | 7524 | 3263 | 3500 | |
| 4255 | 1250 | 3388 | 1250 | 4345 | 5000 | |
| | 7576 | 2423 | 3355 | 8656 | 9667 | |
| 2250 | 2565 | 3250 | 3650 | 7075 | 7134 | |
| 2355 | 4550 | 13255 | 15650 | 32145 | 35000 | |
| 3450 | | 5000 | | 22546 | 22845 | |
| 2145 | 2500 | 2565 | | 7655 | | |
| 2250 | 2500 | 3250 | 14565 | 3455 | 4500 | |
| 3340 | 3500 | 13365 | 10000 | 21255 | 22565 | |
| | 3150 | 7500 | 2250 | 42245 | 50000 | |
| 15365 | 17544 | 2625 | 3255 | | | |
| 12500 | 15075 | 14280 | 4250 | 590529 | 613161 | |
| 5454 | 6500 | 5567 | 15000 | | | |
| 3276 | 7500 | 3321 | 2500 | | | |
| | 7523 | 4520 | | | | |
| 11278 | 13250 | | 4756 | | | |
| 2350 | 2500 | 3177 | 2121 | | | |
| 10000 | 12500 | 4245 | 3500 | | | |
| 3250 | 3565 | 13160 | 4675 | | | |
| 4566 | | 2756 | 15165 | | | |
| 6500 | 7522 | 3261 | | | | |
| 2565 | 3212 | | 3620 | | | |
| 12250 | 13250 | 13217 | 2500 | | | |
| 5450 | 2214 | 2165 | 14675 | | | |
| 350 | 3273 | 3273 | 2800 | | | |
| 2250 | 4345 | | 3840 | | | |
| 3576 | 8656 | | 5000 | | | |
| 500 | 7075 | | 2262 | | | |
| 3378 | 32145 | | 1400 | | | |
| 205396 | 493373 | 235120 | 513251 | 590529 | 613161 | |

RECAPITULATION

| | |
|---|---|
| Old Balances | 590529 |
| Sales | 68250 |
| Cr. Cash Book | 7825 |
| | 666604 |
| New Balances | 613161 |
| Misc. Returned | 12131 |
| Dr. Cash Book | 41312 |
| | 666604 |

A third method consists in taking off only the debit and credit balances. Either of the above two methods can be followed.

These methods save more than half the time required by the old hand method, but there is even a quicker way than those just described and that is found by making use of the large No. 15 Split and Normal machine.

This wonderful machine enables the bookkeeper to add and list credits in one column and debits in another. Thus, when he turns through his ledger and comes to a debit, he enters it in one section of the machine and adds and lists the amount in the debit column. When he comes to a credit, he puts it in the other section and adds and lists it in the credit column. When all the items have been taken in this manner from the ledger, all that is necessary to have a printed total of both debits and credits is to press the total button and pull he handle. All debits and credits or only the debit and credit balances can be taken off at one operation with this machine and the two footings made simultaneously.

## (329) CAPITAL.

Capital may be described as:

1. The liability of a business for value invested by the proprietors or stockholders.

2. The surplus of assets over liabilities.

The nominal or authorized capital of a corporation is the amount specified in its articles of incorporation.

The capital of a corporation is for statistical purposes, generally understood to mean the sum invested to carry on the business.

Capital becomes impaired by losses so that the balance sheet will show a deficit if the losses are heavy enough to wipe out the capital investment.

It is customary, however, in corporation accounting to retain on the balance sheet the original amount of capital as a liability and to show either surplus or deficit separately.

A surplus is distributed among the stockholders of a corporation in the shape of dividends, or carried to reserve account as a precaution against future contingencies. It is not added to capital, but is often used as working capital.

A deficit will show as a debit balance on the profit and loss account, and, of course, diminishes the actual value of capital investment.

The consideration of capital as applied to mercantile operations can be divided among the following three heads:

1. Capital of an individual.
2. Capital of a partnership.
3. Capital of a corporation.

When an individual is sole proprietor of a business, he usually carries the capital account in his own name. All debits and credits from profit and loss go direct to his account, and in many businesses the profit and loss





account is merged in the account of the proprietor, and has no separate existence. In such cases the net gains or losses for the current year are shown by the increase or decrease of the balance of the proprietor's account.

In the case of a partnership the profit and loss account must be kept separate in order to determine the proportion of profit and loss divisible among the partners. Here, again, however, it is quite usual for the capital to be carried as separate credits to the partners in proportion to their respective interests, and not as a "capital" account.

The capital stock account of a corporation sometimes consists of the amount of paid-up stock, but more frequently of the amount subscribed or intended to be subscribed for stock.

The history of the development of corporations as we know them at the present time is a long one. They may be briefly described as combinations effected for the purpose of increasing trade by the use of enlarged capital and limiting the responsibility of the stockholders to the amount of stock subscribed. At one time a partner in a business or the holder of stock in an unlimited company was held responsible to the extent of his whole possessions for the debts incurred by the business in which he was interested. Thus, if one partner speculated on the stock exchange with such proceeds of the business as he could obtain possession of, and the business failed in consequence through being unable to meet its liabilities, the other partners were held responsible to make up the loss not only from the amounts invested by them in the business as shown on the books of accounts, but also to the extent of any personal property of which they might be possessed. The stockholders in private banks which failed disastrously from various causes were made responsible for losses with which they had nothing to do, and to an extent utterly disproportionate to the amount of their interest. It was to remedy this evil, which was actually a menace to investment, that the present laws were established, limiting the liability of a corporation to the amount of capital invested and the liability of each stockholder to the amount of stock subscribed.

### WORKING CAPITAL.

The capital of a corporation may consist, in addition to the capital stock subscribed, of amounts raised by loans or otherwise, for the purpose of securing working capital. In large corporations this working capital is usually secured by the issue of debentures or bonds secured by property and bearing interest which must be paid out of the net profits prior to distributing dividends to either preferred or common stockholders.

Working capital, generally speaking, is the amount available for carrying on the business of the company, i. e., purchase of stock or material, payment of wages and salaries, etc. It frequently happens, however, as previously indicated, that the amount available in the ordinary course of business is insufficient for the requirements of the business, curtailing its opera-

tions and preventing its proper development. In such a case various methods of increasing working capital are resorted to. Sometimes the stockholders will denote a certain proportion of their stock to be sold for cash which will be used as working capital, and the cash so received cannot be credited to that account as it has already been credited with the full amount of the authorized capital. The usual method, therefore, of treating such a transaction is to charge cash when stock is sold and credit working capital account.

Another method of obtaining working capital is to issue mortgage or debenture bonds. By the usual provisions of the acts governing corporations, a company may, upon written consent of its stockholders, representing not less than two-thirds of its stock, mortgage real or personal property to secure the payment of the amount of such debentures or bonds. These bonds, of course, bear interest, said interest being payable periodically.

Another method of obtaining working capital is to call an assessment on the stockholders of so much per cent on the capital stock. This plan, however, is not often resorted to.

Working capital may therefore consist of:

a. Capital stock subscribed and paid.
b. Capital stock sold by stockholders to raise cash.
c. Dividends or surplus undistributed.
d. Part of purchase money of business allowed to remain unpaid.
e. Loans from bank or otherwise.
f. Proceeds of accommodation notes.
g. Proceeds of sale of bonds.
h. Assessment on stockholders.

CAPITAL ACCOUNT.

Capital account is sometimes used as a medium for defeating pertinacious creditors. For instance, a company is incorporated with $200,000 capital, of which $100,000 is scheduled as the value of patents. A credit of $100,000 is passed to the supposed owner of the patents on the books, and stands as a liability, so that in case the company fails the supposed owner of the patents schedules his claim for 50 per cent of the company's assets. Fifty per cent of the realizable assets of the company at the time of failure probably represents more than the actual assets with which the company started, so that the company has the sinews of war to start again immediately under a new name. This is one of the common tricks of trade.

### (330) CIRCULATING CAPITAL.

A term used to describe that portion of the capital devoted to the purchase of commodities to be resold or material necessary for the manufacture of articles for sale.





### (331) FIXED CAPITAL.

That portion of capital invested in permanent assets, such as real estate, buildings, machinery, etc.

### (332) CAPITAL ASSETS.

Where capital is sunk in permanent assets which would not realize the amount invested, it has been decided by eminent authorities that it is not necessary to re-value the assets at their present value, deducting the amount of depreciation from the profits earned and thus reducing probable dividends. Nevertheless, it is evidently sound conservative policy to establish a reserve to offset depreciation of capital assets in cases of this nature. Permission is sometimes obtained from the stockholders to reduce the capital stock; thus a company incorporated for $100,000 in 1,000 shares of $100 each may obtain consent to a reduction to $75,000 in 1,000 shares of $75 each, this reduction in the value of capital stock thus offsetting the reduction in the value of capital assets. The procedure necessary in case of increasing or decreasing capital stock is about the same. The consent of two-thirds of the stockholders must be secured at a special meeting properly called in accordance with the laws of the State regulating such transactions, and certified copies of proceedings must be filed with the Secretary of State. The treatment of additional capital stock on the books of account is similar to that of the original capital stock.

### (333) NOMINAL AND ACTUAL CAPITAL.

Many accountants differ as to the proper method of showing capital stock on the balance sheet. In Great Britain the nominal capital is always placed in an inner column, while the amount of actual capital subscribed is included in the statement of assets and liabilities. In the United States it is usual to include the whole of the authorized capital in the balance sheet, offsetting unsubscribed stock by a negative account.

### (334) CAPITAL EXPENDITURE.

Capital expenditure is that incurred in placing an enterprise on a footing to do business, such as the purchase of real estate on which to locate a factory, the building of the factory, the purchase of equipment for the manufacture of the articles to be sold, of the rolling-stock of a railroad company, etc., and any other expenditures incurred with a view to increasing the earning capacity of a business, such as improvements to machinery, the addition of new devices, etc., are capital expenditures.

Capital expenditure is the exchange of cash for fixed assets of equal value, such as machinery, real estate, buildings, improvements, etc.

Expenditures for the purpose of constructing or improving factories or plants, should be considered as capital expenditures.

The cost of sinking a new shaft in a mine, driving new levels or erecting engines is capital expenditures, but the cost of maintenance of the mines, repairs and renewals should be charged against revenue. Renewals are capital expenditures only to the extent of the increase in value of the asset renewed over its original value.

### (335) CAPITAL EXPENDITURES—INTEREST ON.

A great many corporations who own their land and buildings still make a charge on their books for interest on the value of such land and buildings, as they say this covers the rent they would have to pay supposing the property were leased.

This interest is, of course, charged against profits on the one hand, and included as part of the burden to be distributed over the various products manufactured, so that it becomes a part of the value of finished goods and goods in process and thus gets into the profits again.

This may be scientific, but appears to us entirely unnecessary. It would also be probably prejudicial to the business in cases of keen competition.

"Why should interest on the capital invested in a productive plant, which is invested in the ordinary way of carrying on the business of the undertaking, be added to the provision for depreciation? This method complicates and obscures the actual facts, and is by no means to be commended. The locking up of the capital for a time in productive plant is one of the incidents of the undertaking, and is one of the purposes for which the capital is provided, and the whole profit resulting from the various incidents of the business is the reward of the capital invested therein; and it appears that between the two methods, interest or no interest, for this particular purpose, the latter has much to commend it. If interest is to be calculated on portions of capital locked up from time to time in the course of carrying on the business, it would follow that it should be computed on an overdue debt, for instance, the amount so computed being debited to the Profit and Loss Account as a loss on sales, while on the credit side of the Profit and Loss Account would appear the fictitious interest so charged upon the overdue debt. Indeed, to carry the matter to its logical conclusion, and having regard to the fact that the amount of capital locked up in productive plant averages itself as closely as capital locked up in debts, interest should be computed on all debts outstanding, whether due or not, less perhaps the amounts payable to creditors, Profit and Loss Account being credited with this interest and at the same time debited with a similar sum under the head of Loss on Sales."

### (336) CAPITAL LIABILITIES.

Those due to stockholders and for bonds issued or loans procured for the purpose of obtaining working capital.





### (337) CAPITAL PARTNERSHIP.

In partnerships the profit and loss account must be kept separate in order to determine the proportion of profit and loss divisible among the partners. It is customary for the capital to be carried as separate credits to the partners in proportion to their respective interests, and not as a "capital" account.

### (338) CAPITAL RECEIPTS.

Capital receipts include cash or value received from the stockholders in payment for stock subscribed, or sold; cash received from the sale of debentures or bonds issued to provide working capital; cash received from the sale of fixed or capital assets; cash received from the investment of surplus capital in outside enterprises either in the nature of interest, dividend, or otherwise.

### (339) CAPITAL AND REVENUE (DISTINCTION BETWEEN).

Amounts appearing on the debit side of a trial balance represent either assets or expenditures.

Those debits from which we expect to receive returns or equivalents are active assets.

Those debits which are payments on acount of machinery, plant, wages for construction, new parts, etc., are capital expenditures.

Those debits which represent payments in respect to which no returns are ever expected, are revenue, or profit and loss expenditures.

Amounts appearing on the credit side of a trial balance represent liabilities, negatives to assets, capital receipts and profits.

Those credits which have to be satisfied with cash or its equivalent, are liabilites.

Those credits which relate to receipts not pertaining to the ordinary transactions of the business—such as sale of machinery, royalties or patents, sale of land, rents, etc.—are capital receipts.

Those credits which show gross sales, or earnings of the business, are revenue receipts.

It sometimes occurs that some balances relate partly to capital and partly to revenue. In this case they must be analyzed and distributed.

### (340) CAPITAL—SOLE PROPRIETOR.

When an individual is sole proprietor of a business, he usually carries the capital account in his own name. All debits and credits from profit and loss go direct to his account, and in many businesses the profit and loss account is merged in the account of the proprietor, and has no separate existence. In such cases the net gains or losses for the current year are shown by the increase or decrease of the balance of the proprietor's account.

## (341) CAPITAL STOCK.

See STOCK.

## (342) CAPITAL STOCK UNSUBSCRIBED.

See STOCK.

## (343) CARD SYSTEM.

A method of keeping records on cards. These cards can be made of any size, with trays, or files, to fit.

Generally speaking, the advantages obtained by the use of card records may be described as follows.

Guide Cards.—These can be placed wherever desired for the purpose of securing general and special information at, practically, a moment's notice. This information is secured by attaching movable, or immovable, extension tabs to the cards. In many cases immovable tabs may be used with safety, all possible requirements being perfectly understood, but in instituting a card system, it is better to at first employ movable tabs, as many new ideas and uses for guide cards are more than likely to be discovered after the adoption of this device.

These guide cards constitute the indexes proper, but special indexes can be obtained by attaching extension tabs to the record cards themselves, and anyone who has had experience with the card system will readily recognize the fact that a card, filed in a finely subdivided index, is much more quickly found than is a name in any book index. Then, too, with the card system, reference is had direct to the records themselves instead of first finding the name and then turning to the page of a book to find the desired record. Various illustrations will be shown, but as good an example as any may be found in a real estate office rent record, which by the use of this system may be made to show at a glance.

Name of owner.
Name or location of property.
Due date of rent
(Weekly, monthly, quarterly, yearly.)

In the meantime the card contains full particulars of rental agreement and the ledger account with the tenant. Cards of tenants in arrear may be placed in a separate section, or file, which will demand constant attention from the collection department, and unrented property will be placed in another section.

By the use of these guide cards and extension tabs the separate index is no longer required and a great saving of time is thereby effected.

Transfers.—In bound books transfers are frequently necessary on account of space allowed to an account being insufficient, or ledger being filled, these changes having to be recorded in the index. By the card system all accounts are unlimited as to expansion. When a card is filled a new card





is placed in front of it, so that the record is continuous no matter how many entries may be required. Records that are no longer needed—such as closed accounts—are removed to a Transfer file, so that all useless, or dead, matter is eliminated.

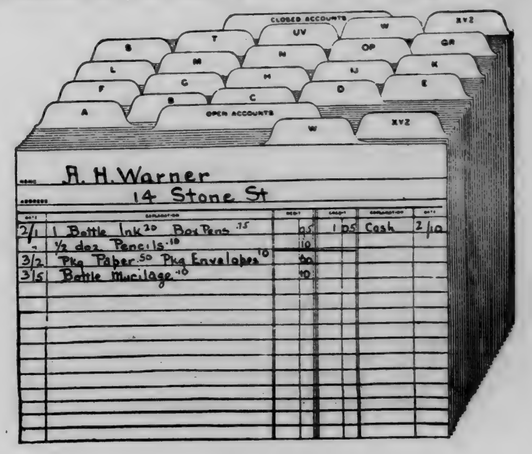
In a small business it is practicable to carry both active and inactive accounts in the same tray, the active accounts in front and the inactive accounts at the back, properly distinguished by guide cards. This arrangement is found very convenient in transferring dead accounts and saves expense.

## (344) PETTY LEDGER.

Transient, or Sundry Accounts.—Every book-keeper has experienced the inconvenience and general annoyance caused by the ordinary "Sundries" Account in the customers' ledger. This account is, as a rule, full of small items occupying numerous pages, the charges occupying one line each. When every account on a page except one has been closed it is extremely difficult to recognize the fact that there is one unpaid account left on that page, as it is practically "buried alive" among the dead accounts. With the card system only unpaid accounts would appear in the "Sundries" ledger, or section, and one of the most dangerous "trial balance traps" would thus be removed.

Doubtful Accounts.—These can be filed together, either at the back of the active accounts, or in a special Suspense file, where they will always call for special attention.

Detection of Errors.—In taking off the trial balance, the amount due to date is placed in the balance column of each card, then the sectional system is adapted as follows: into each alphabetical section of cards is placed a balance card, to which is carried the footing of each column for



the month, of all the accounts in that section, hence if an error occurs in the trial balance, these columns from the balance cards can be proved by the day book or the cash book, and so an error located to one book. Inside of one hour after the completion of a trial balance all errors can be located. The balance cards also prove the correctness of the balance columns of all the cards in a given section.

Saving of Time.—By the elimination of dead matter in a card ledger it is not necessary to carefully go over all closed accounts in getting a trial balance. In sending out statements at the end of the month the cards may be distributed among several clerks and the work promptly accomplished.

In posting, the cards called for by the book from which postings are to be made can be taken from the card tray and arranged to correspond with the entries. Posting can then be accomplished in at least half the time which would be occupied in posting to a bound ledger.

The saving of time in regard to indexing has already been referred to.

Expense.—The card system is not only the most efficient but the cheapest form of record. The trays once secured do not have to be periodically replaced, and cards of any style can be purchased in large quantities at almost nominal prices.

Utility.—Card systems can be adapted to almost any kind of record —such as Advertising, Correspondence, Credits, Collections, Factory Costs, Indexes of Electros, Tools, Libraries, Machinery, Subjects, Stationery, etc.

The card system has been described as a method of recording, classifying, and indexing facts, figures, or names of every description by means of cards, uniform in size, arranged on edge in drawers or trays, according to some defined order, with projecting guide cards to facilitate immediate reference.

Among its many uses may be specified—

(345) CUSTOMERS' REFERENCE LIST.

This is a card index of dealers purchasing certain lines of goods, to whom appropriate advertising matter is mailed periodically. Different colored cards are used for the different lines manufactured. The card allotted to the prospective customer is dropped into an index "tickler" and will come to light again in about ten days, when a reminder will be mailed along the

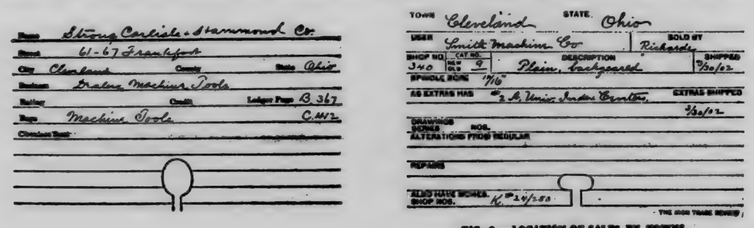



FIG. 3.—LOCATION OF SALES BY TOWNS.





trail of the preceding letter. The card is then put away in the monthly file and will appear once more at the expiration of thirty days. There must necessarily be a limit set to the letter writing which fails to bring an inquiry to the purchasing stage, and it is customary to set this limit at the third letter, when the card is filed with the Customers' Reference List.

(346) CUSTOMER'S RECORDS.

In many businesses it has been found advantageous to keep a complete record of sales to customers, and how the orders were secured, principally for the purpose of checking up the salesmen and their work with customers in the various cities on their routes.

These cards may be indexed in several ways, but in a business of any size it is best to provide a separate tray for each salesman's route. The cards should then be indexed, and cross-indexed, with extensions of different colors and sizes to show state, city, and names in alphabetical order in each city. Salesmen should make reports on all customers from whom no orders were received and dates of calls should be entered on the cards.

CHURCH MEMBERSHIP RECORD

Name Bishop Address 432 Olive Street.

| Names | Born | Baptized | Confirmation | First Com. | Church Relation | Interested in | Remarks |
|---|---|---|---|---|---|---|---|
| Parents Frank H. | 1870 | 1871 | 1886 | 3/10/86 | Deacon | | |
| Edna M. | 1872 | 1887 | 1888 | 6/2/88 | | Foreign missions | |
| Children | | | | | | | |
| 1 Harry W. | 1897 | 1898 | | | | | |
| 2 Julia B. | 1899 | 1899 | | | | | |
| 3 Winfred | 1901 | 1902 | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | Joined Church Mch 20-1896 |
| 8 | | | | | | | Letter from Rev. W. H. Williams |
| 9 | | | | | | | Madison, Wis. |
| 10 | | | | | | | |

(347) CHURCH MEMBERSHIP AND PARISH RECORD.

Records of this kind can be very conveniently arranged by the card system. The list of members will always be up-to-date, as the cards of those who have removed, or died, can be taken out and placed in another tray.

Cards should be provided for all families under the pastor's jurisdiction, containing particulars of history, individuality, church connections, etc. Visits would be recorded on these cards, which would form a most valuable record for the pastor's guidance at all times. When families remove to another parish cards are sent to the pastor of the parish to which they now belong.

(348) COLLEGE RECORDS.

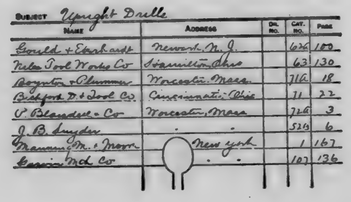
Records of the studies of college students, students' personal records, etc., can be kept by the card system with great advantage, one card being issued for each subject of study. On this card will be entered the grading for the several terms of each year, together with certificate of graduation at the close of the course.

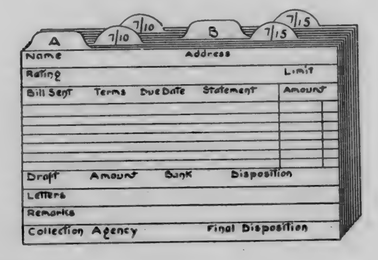
BUSINESS COLLEGE RECORD

| Ent. | | | | Stop | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name | | | | Address | | | | | | |
| Parent, Guardian | | | | " | | | | | | |
| | | Date | Grade | Mo. | GRADE FOR WEEK 1 | 2 | 3 | 4 | 5 | AVG. GRADE FOR MONTH |
| Class 1 | Beg. | | | Sep. | | | | | | |
| " 2 | 1st. Dict. | | | Oct. | | | | | | |
| " 3 | 2nd. " | | | Nov. | | | | | | |
| " 4 | 3rd. " | | | Dec. | | | | | | |
| " 5 | Speed | | | Jan. | | | | | | |
| Final Examination | | | | Feb. | | | | | | |
| Secured Position | | | | Mch. | | | | | | |
| Average Grade for Term | | | | Apr. | | | | | | |
| | | | | May | | | | | | |
| | | | | June | | | | | | |

(349) CATALOGUE INDEX.

This card shows that the filing case has various catalogues from builders of upright drills; the card giving the address of the manufacturers and the number of the catalogue, also the page on which references to upright drills may be found. If any one requires a drill that is not then in stock, it is possible to refer immediately to the various builders and find the catalogue by the number and the page. It thus takes but a few seconds to find the printed matter relative to the product of any builder the company may require.




(350) COLLECTIONS.

In all large businesses it is necessary to provide a separate record for collections, and the card system is admirably suited for this purpose.

The illustration here shown provides for name and address of customer, rating, limit, date, amount and terms of bills, steps taken for collection and

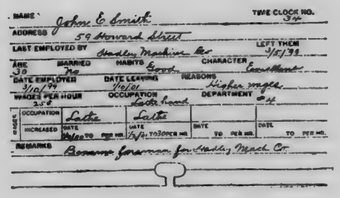


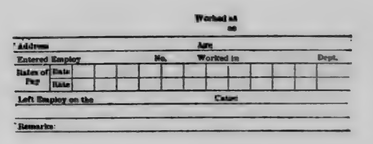


other particulars rendering the credit man absolutely independent of the bookkeeper. The cards are filled out and given to the credit man the day the order is received, so that he has an opportunity to stop any order exceeding the limit of credit. They are cross-indexed, alphabetically and by due date. Overdue accounts are transferred to a separate section or tray.

(351) EMPLOYEE'S EXPERIENCE RECORD.

This is a permanent record of the workmen who have at any time been employed in a factory, etc., and is extremely useful in case of inquiries being made by other employers, or in case a former employee desires reinstatement.



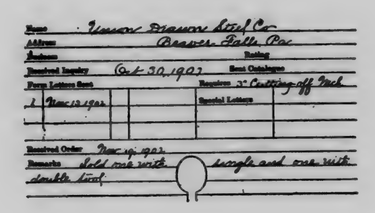



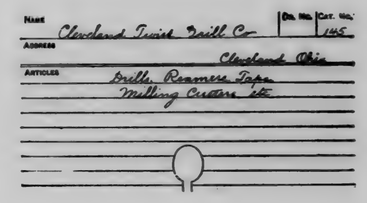

(352) RECORD OF INQUIRIES.

This record is for "follow-up" purposes.

(353) MANUFACTURERS' RECORD.

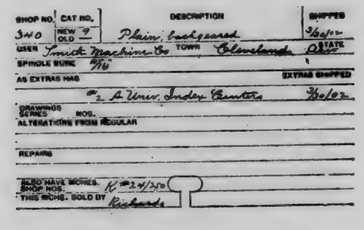
The handling of catalogues sent out by other manufacturers is a matter of considerable importance and is more frequently neglected than otherwise. Every catalogue should be filed in such a manner that it can be removed without disturbing any other catalogue in the case; and provided that a thoroughly effective method of getting at the catalogues without delay can be used in connection with a complete and well-weeded stock of trade literature, and this combination is employed in turn with a close price list, the man in control will be able to quote without delay on any goods his customers may require in his line of business.



(354) SALES RECORD.

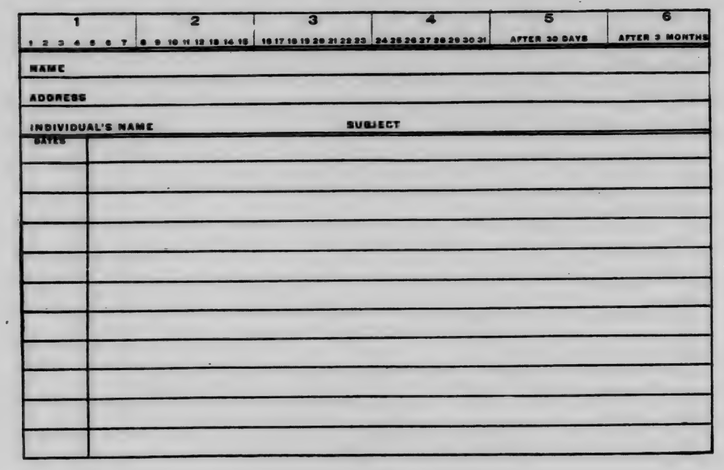
The information contained on a record of this kind is of value when a duplicate machine is ordered, while it enables the manufacturer to readily refer a prospective buyer of a certain kind of machine to purchasers of similar machines in his vicinity.




(355) SUBJECT RECORD.

Authors, lecturers, political speakers, and clergymen are necessarily heavy readers, and realize the difficulty of remembering passages that not only prove of great interest at the time of reading, but which would be valuable for future reference. This difficulty can be entirely overcome by noting on cards, either a brief summary or an exact copy of the passage in full, stating the name of the book, its author, number of the page or pages, containing the article of interest and filing same in a Card Filing Cabinet.

These cards are placed between guide cards in alphabetical order, under the name of the subjects to which they relate. Frequently these extracts








could be appropriately filed under two or more titles. This is termed cross-indexing and is advisable, as it greatly facilitates ready reference. The extract is written on the card which bears the title by which it is most likely to be remembered. The cards bearing the other titles only state the division of the index where the extract is to be found. Thus all information of special interest pertaining to a certain subject collected at different times from different sources will be found together. The value of this work will be readily appreciated. The system would prevent the loss of much valuable time spent in looking for information that must either be found or else curtail to that extent the weight and value of the work to be done.

(356) INSTALMENT RECORDS.

Since the advent of the card system of records, many firms have found that they more fully conform to the requirements of their business than their present bound book methods permit. This may be said to be especially true of accounts relating to accrued amounts falling due at stated intervals, in which the card system is not simply a substitute for books but a decided improvement.

By using the card system in the instalment business accounts can be indexed alphabetically, and by dates of expiration, at the same time; while bound ledgers cannot be cross-indexed. All overdue or unpaid instalments cannot be separated from those that are paid, which goes to show that some auxiliary "tickler" system would have to be provided in order to ascertain the due dates of the different instalment accounts.

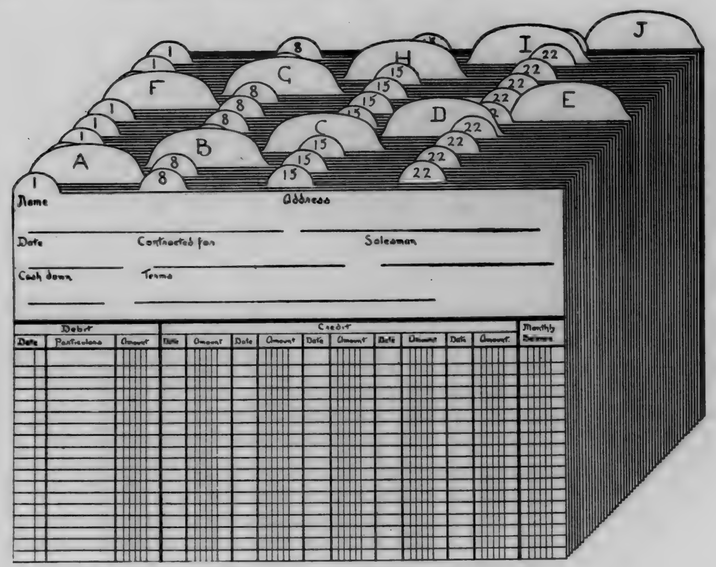
With the card system cross-indexing can be effected with extension tabs of different sizes and colors. From the illustration submitted it will be seen that the cards are filed away in alphabetical order and tab cards provided which have edges projecting above on which are printed the due dates of the different instalments, June 1, 8, 15 and 22. All accounts falling due on the same dates are indicated by straight rows of tabs in the same position; consequently the projections will all be in a direct line, thus enabling the bookkeeper or clerk to readily procure a collection list.

In case a customer does not pay when account is due, simply transfer the card in front of tab card bearing date when payment is promised or remove to a separate file for special attention.

Closed accounts can be removed, thus eliminating all dead matter.

Should a prejudice exist against the use of the card system, the tabular bound ledger would undoubtedly answer the purpose best for instalment accounts. By carrying a representative or controlling account in the general ledger with the tabular ledger, the accuracy of the work can be easily checked by comparing the grand total of the balances as shown by the tabular ledger with the general ledger representative or controlling account.

On the other hand when the card system is used, in order to prove the accuracy of the work, it will be necessary to make a recapitulation of the balances each month, which will involve considerable labor.




Should a card happen to be lost or misplaced, a duplicate can be readily obtained from the balance sheet, which will show the charges and credits for the month together with the new balance, and from order book and cash book.

### (357) REAL ESTATE RECORD.

In this business three kinds of records must be provided for.

1. Account with tenant.
2. Account with property.
3. Account with owner.

The account with the tenant will show rent accrued and paid.

The account with the property will show expenditures on property for repairs, etc.

The account with the landlord will show payments to him with particulars of deductions on account of expenditures and commission on rents collected.

Separate cards of regular ledger form should be provided for accounts with owners, debiting their accounts and crediting expenditures controlling account when rendering periodical reports of transactions. It is well to have cards of different colors for these two classes of cards, the property records following those relating to the owners. This arrangement can be effected equally well by the loose leaf system. Where accounts are designated by

numbers the owner's number will be (say) 5, and the property account numbers will be 5a, 5b, 5c, etc.

In this case, instead of removing the accounts of tenants in arrears they might be designated by special extension tabs.

Separate columns should be provided in cash book for rents received and property disbursements.

### (358) MORTGAGE LOAN BUSINESS.

A card index of mortgage loans is one of the handiest office records a savings bank man can use. It can be made so as to be inexpensive and at the same time very effective. For a savings bank of ordinary size a card tray about eighteen inches long and with an inside width of from five to six inches would suffice to contain all the cards needed. The cards, in order to show all the needed information on one side would better be about five by four inches. Any card of good material furnished by your printer and printed to suit your needs should answer. For a bank, however, that uses a regular card index, and has a drawer to spare, the ordinary index card should be made to serve by utilizing both sides. The information may be arranged to suit the needs of the bank adopting the system, but should present the following information:

1. Location of property.
2. Name of mortgagor; address for mailing interest notices.
3. Amount of loan, and indorsements on principal.

4. Rate of interest.

5. Description of property; such as land area, street or other bounds buildings and their use.

6. Amount of insurance; expiration dates of policies.

7. Assessed valuation for taxation; estimated value by investment committee.

This information can be arranged as the user chooses, but it is suggested that it be as follows: Let the first line on the card be divided about two inches from the left margin. In the first division place the location; in the second the name of the mortgagor. On a second line immediately below the name place the address. It is better to leave a line below this even for a possible change, which often takes place when the mortgagor does not occupy the premises in person. At the left of the card, under the location, have an ordinary column ruling running from the second line to the bottom. This can be used for the amount of the loan, and as each indorsement is made it can be readily deducted. The bottom figure will then show the outstanding loan in all cases. This column need be no more than an inch wide, and in the other inch below the location on the second line of the card place the interest rate. In a column running from this to the bottom of the card can be placed the amount of insurance and the expiration of the policies. The latter part of the matter, however, is usually kept in a separate record, and is suggested for use here simply to bring all the needful facts together. The assessed value, and the loan estimate value of the property, together with the date of the loan, can be put on the line immediately under the name and address of the mortgage. All the rest of the card may be cross ruled and used for a description of the property. If it is desired this space may be subdivided for the following captions: Location, lot area, buildings, condition.

It will be seen at a glance how useful such a record can be. The cards, arranged by groups, according to the alphabetical order of location, show at once just what property is held as security in a given locality as well as the amount loaned in that locality. An alphabetical arrangement in each of these locality groups by names of mortgagors will render it almost as easy to obtain a given address as though the cards were arranged by mortgagors from beginning to end. If it is desired to classify the mortgage loans by rates of interest the cards can be taken out and sorted, or the amounts called to a sheet without handling any dead matter. If it is desired to list the assessed or estimated value of the property, as compared with the loans carried, it can be readily done from these cards alone. If it is desired to watch the condition of any of the mortgaged property, where it is suspected that waste is being committed, the card can be laid aside as a memorandum, or a duplicate made and given to the investment committee or agent. Being in the possession of all the material information about the property a more intelligent report concerning its condition will be obtained. The expiration of insurance policies can be noted and the cards extracted as memoranda





until the new policy is filed. It is no great matter to keep such a system as this up-to-date. The change in address can be corrected after every interest date or when they occur in the interim. Endorsements of loans can be made as they occur, and in fact all the needful changes can be noted with a very small expenditure of time. The value of such an index is very great. It is an epitome of the whole real estate loan system of the bank, arranged in such a manner that as sooon as a loan is paid the card can be removed, and when a new one is made a record can be inserted. It has stood the test of practical experience in a number of banks that would not be without it as a follow up system.—(*E. L. Sanderson.*)

### (359) societies, clubs, etc.

A set of books or a system of accounting eminently adapted to one club might not be suited to or exhibit desired results under other conditions. The accountant must exercise his ingenuity in bringing about results wherein are exemplified the most complete and valuable information with the least amount of labor, a minimum of labor with a maximum of results. All inventors have in mind an economy of labor, a saving of material. They expend great labor themselves that others may be relieved of it. They are great promotors of civilization. The successful accountant is one who uses his brains, like the great painter, who when asked, "How do you mix your paints to secure such brilliant coloring?" replied, "With brains!"

The set of books here submitted was devised to meet the requirements in a club having a membership of over 750. The dues are $20,000 per year, payable quarterly in advance. If dues are not paid by the end of the first month of the current quarter, a fine of $1.00 is charged. If still not paid two weeks after the additional charge of $1.00 is made, or on the 15th of the second month, the delinquent is then notified that his name will be posted on the bulletin in the club rooms and if not paid by the end of quarter the member stands suspended from all privileges until full payment has been made.

It will be readily seen that it becomes necessary to know how the delinquents stand at any time and again the directors may call for an estimate of delinquents, which must be made out by the treasurer at a moment's notice. Obviously the old style ledger is wholly inadequate.

Payments for expenses, etc., are made by order of vouchers signed by the secretary and president.

To meet these requirements the following system has been devised by the writer.

1. Journal.
2. Receiving cash book.
3. Distribution sheet for vouchers paid.
4. Ledger.

The journal used is the ordinary two column ruling. In this the members are charged for the quarter's dues and "dues" account credited, also at

Distribution Sheet

| Date 1902 | Names | Ch.No | V.No | Amt | Help | Rent | Coal Light | Repairs | Orchestra Entertainment | Safety Entertainment | Lodging Entertainment | Cigars | Liquor | Expense | Library | Athletics |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feb 1 | A Bulgaas | 20 | 1 | 140 | | 140 | | | | | | | | | | |
| " 10 | D.H.Smith | 21 | 2 | 210 | 50 | | 74 | 26 | 10 | | 87 | | | | | |
| " 18 | John Doe | 22 | 3 | 50 | | | | | | | | | | | 35 | 15 |
| Mar 3 | Rob Doe | 23 | 4 | 10 | | | | | | | | | | | | |
| " 7 | F.R.Doe | 24 | 5 | 80 | | | | | | | | 40 | 30 | | | |
| " 20 | A.Scrubb | 25 | 6 | 57 | 50 | | 7 | | | | | | | 40 | | |
| " 21 | R.H.Dabb | 26 | 7 | 290 | 25 | 100 | | | 5 | 4 | 10 | | | 50 | 40 | 26 |
| " 31 | F.L.Coe | 27 | 8 | 360 | | | | 20 | | | 30 | | | | | |
| | | | | | | | | | | | | | | | | |

end of first month delinquent members are debited for $1.00 and "delinquent dues" credited. However, instead of writing the list of members as debits and then posting to the card ledger, the charges are made directly on the card, the cards counted and an entry for the total made in the journal and so many members debited to dues credited for the total. All allowances and sundry other entries are also entered in the journal. When members are suspended the cards are filed together in the back of the "Unpaid" drawer. No entry being necessary. If the directors order the suspended members' accounts closed they may be credited and "Suspended Dues" debited."

In the receiving cash book are entered cash receipts for dues, sales, and donations. All receipts are deposited in bank. The total should equal the amount deposited.

NAME S.B.Willey — ACCT. NO 524

BUSINESS ADDRESS 245 Wabash Av. — TELEPHONE NO H 166

HOME ADDRESS 11268 Wentworth St — TELEPHONE NO G 4791

| DUES | | | | | PAID | | | | | CHARGES | | | | | PAID | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feb | 1 | 02 | 32 | 10 | May | 1 | 02 | 33 | 15 | Feb | 5 | 02 | 20 | 4 | 50 | Feb | 1 | 02 | 14 | 20 | 00 |
| May | 1 | | 36 | 5 | Sep | 1 | | 39 | 6 | | 21 | | 21 | 4 | 75 | | | | | | |
| Aug | 1 | | 39 | 5 | Nov | 1 | | 43 | 5 | Mar | 3 | | 24 | 7 | 05 | | | | | | |
| Sep | 1 | | 41 | 1 | Mar | 4 | 03 | 49 | 6 | | 22 | | 27 | 2 | 80 | | | | | | |
| Nov | 1 | | 48 | 5 | | | | | | | | | | | | | | | | | |
| Feb | 1 | 03 | 49 | 5 | | | | | | | | | | | | | | | | | |
| Mar | 1 | | 57 | 1 | | | | | | | | | | | | | | | | | |

REMARKS
Member Hamilton Union ○ Alderman 1900-1902
League & Marquette Clubs State Senator 1902

The distribution sheet (size 8x13) is for the record of all payments ordered for vouchers. The amounts are entered in first or total column and then distributed to proper columns as per directions. The total of the total column should equal the total of the several columns, thus proving the distribution. The sheets in this book alternate as short and long at both top and bottom. For instance, the totals of the first page, while appearing at the





bottom of the page, are in reality on the second page at bottom, which extends below the first page. When the second page is totalled the totals are placed at the top, being written on the third page, which projects above the second page. This saves carrying totals forward, saves time and prevents mistakes. The heavy ruled line at bottom of form represents the edge of the sheet, the space below is the bottom of the next page. The extra items appearing in the cigar and liquor columns represent sales and are entered here from the receiving cash book.

The ledger used is a two-drawer cabinet card ledger. One drawer marked "Paid" and the other "Unpaid." The card (size 4x6) also contains other than account information. The cards are arranged alphabetically with vowel subdivision. The account number is of no particular use. The numbers are carried consecutively. An extra card on which numbers appear from 1 to 1000 being kept in one of the trays, and as a new member is added the number is crossed off the card and entered as an account member on the ledger card. When a member resigns, a red line is drawn through his cancelled account number and then this card number is used for the next new member, thus keeping the list filled. The space beneath the account number is used for pencil memorandum relative to collections, suspensions, etc., and is erased after it has served its purpose. (See card as above.) At the beginning of the quarter when each amount has been charged for dues, the cards are filed in the "unpaid" drawer. As payments are made, receipts are given, the amount entered in the receiving cash book and posted to the account as per card. The card is then transferred to the "paid" drawer. At the end of the first month those remaining in the "unpaid" drawer are to be charged for delinquency as per bylaws. At any time that the board of directors may call for a list of delinquencies the "unpaid" drawer may be taken to the board room for inspection.

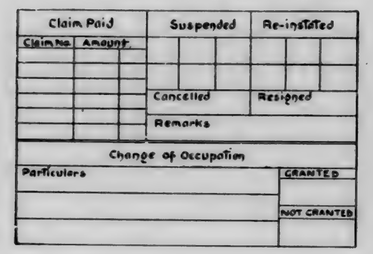
The cards are held in place by a rod passing through a hole in the card at the bottom, and the rod has a spring which locks when the rod is fully returned, and cannot be withdrawn without the aid of a key. This prevents any one from easily removing the card. The cards can be readily looked over without being removed.

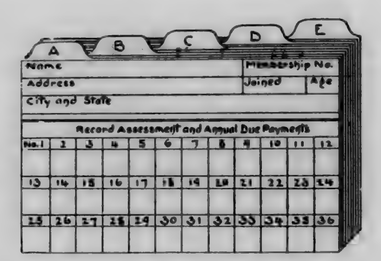
When a trial balance is desired, the totals of columns as per distribution sheet are to be included together with cash balance and the accounts shown in the "unpaid" drawer.—(*W. H. Whigam.*)

(360) ACCIDENT INSURANCE COMPANIES.

The card below illustrated has proved the most convenient record ever adopted in this particular industry. It will be noticed that sufficient space is provided for the payment of thirty-six assessments, or a record for nine years.

Where there are agencies in several cities the cards are distributed either geographically or by agents' names and then alphabetically. Lapsed




cards are transferred to dead files arranged in exactly the same way, so that a complete list of lapsed members in any territory can be furnished promptly when required.

### (361) TELEPHONE BUSINESS.

A card index system is employed which contains names and addresses of subscribers, rate, character of service, date of installation, etc., so that the names and address columns in the Lease Ledger are not used, the record of the number of the lease being sufficient. This eliminates a good deal of work on the ledger and saves the bookkeeper from interruption, as reference can ordinarily be made to the cards instead of to the ledger.

### (362) RECORDS AND LEDGERS FOR THE MEDICAL PROFESSION.

The Card Ledger system of accounting may be said to consist of recording on separate cards or slips, original financial transactions, which, instead of being bound together, in one or more volumes, are placed in files or boxes, and are easily detachable.

The chief advantage of this system over the bound book system are:

1. Settled accounts can easily be removed and filed separately, thereby enabling the bookkeeper to prepare a trial balance readily by having all current accounts together.

2. The variety of classifications of the matter to be filed, viz.:

(a) Alphabetically.
(b) Geographically.
(c) Numerically.

(a) can be subdivided as follows:
Alphabetically as to names of individuals.
Alphabetically as to places.
Alphabetically as to subjects.
(b) can be subdivided as follows:
Geographically as to streets.
Geographically as to towns.
Geographically as to counties or countries.





Patient's Name *Frederick Harris* Year *1908* Card *1*

| | Jan. | | Feb. | | March | | April | | May | | June | | July | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | Total | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr | Cr. | | |
| Bal. Forwarded | | | | | | | | | | | | | | | | | | | | | | | | | $9.00 | |
| Calls at House. | 1/100 | | | | | | | | | | | | | | | | 11/150 | | | | | | | | | |
| | 11/100 | | | | | | 12/50 | | | | | | | | | | | | | | | | | | | |
| Office Calls. | 38/50 | | | | | | | | | | | | 38/50 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | 16/1000 | | | | | |
| Medicine. | | | 38/50 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 25 1/2/50 | | | | | | | | | | | | | | | | | | | | | | | |
| Debit: | 2.50 | | 1.75 | | | | | | | | | | .50 | | | | 1.00 | | | | | | | | 6.75 | 15.75 |
| Credit: | | | | | | | 5.00 | | | | | | | | | | | | | | 10.00 | | | | 15.00 | 15.00 |
| Remarks. | Threatened with diphtheria | | | | | | | | | | | | | | | | Balance carried forward to 1909 | | | | | | | | .75 | |

And further subdivisions can take place, such as:

Geographically—counties subdivided either alphabetically or numerically, and so on.

Reclassification can also be accomplished, without the trouble and expense of rewriting, by the simple act of moving and rearranging the cards.

3. The Card Ledger is always the exact size for the business. It contracts and expands automatically with the contraction and expansion of trade.

4. No opening of new ledgers when old ones are completed. A new account in the Card Ledger system means—one of an innumerable quantity; whereas in the bound Book Ledger a new account means—one of a fixed quantity, which when extending beyond 1,000 becomes cumbersome and unwieldy. It is just as easy to keep 100,000 accounts as 10,000 on the Card system. The cards can be handled by more than one individual at the same time, so that, in the preparation of statements, etc., it is possible to prepare 100 statements on the Card system whilst 10 are being prepared from the Book Ledger.

5. No separate index required, except when the ledger accounts are arranged in numerical order, as the Ledger Card is index and account combined.

For example: Say that the account of H. Hughes is required in a Card Ledger. Turn to the index card guide H, and under Hu will be found the account wanted. Now take the book index, arranged on the best possible plan, say, the "Vowel" system. Turn first to the index letter H, then to the fifth division, and amongst all the names will be found the particular

on required. It may be the first, or it may be the last, but every name commencing with Hu must be looked at until Hughes is arrived at. When found, the folio must be noted and the page required turned up in the Ledger. Estimate the amount of time lost by this latter method, multiply it by the number of references made into a ledger in a year, and you will be amazed at the result.

The material of which the cards are made in the ledger before you is known as "Two-sheet cardboard," and the size used is 8 in. broad by 8⅝ in. long. I may, however, say that a card 6 in. long by 5 in. deep has been found to be more practicable. These cards are of two classes:

1. Record Cards, for receiving the financial accounts.
2. Guide Cards, for indicating the position of the Record Cards.

The Guide Cards are composed of a stouter material known as "Four-sheet cardboard," and stand half-an-inch higher than the Record Cards. This half-inch is partly cut away and rounded off, so as to form a kind of tab, at the top of the card. Upon this tab or sign-post is written or printed the index. The number of these Guide Cards will vary, according to the number of Record Cards requiring classification in any one division and the tray provided to contain the cards should be deep enough to allow about a quarter of an inch clearage between top of the Guide Cards and lid. It has also been found advisable to have the inside of the box about one-sixteenth of an inch wider than the Cards.

The uses that the Card or Slip system can be adapted to are very numerous. Among the principal may be mentioned the following:

1. Keeping records of costs.
2. Keeping records of stocks.
3. Keeping records of inquiries.
4. Keeping records of orders.
5. Keeping records of quotations.
6. Catalogues of books.
7. Lists of individuals.
8. Membership of societies, etc.

### (363) Indexes and Ledgers for Savings Banks.

When a person desires to make a deposit (he or she) is first required to fill out a signature card, by signing which he agrees to conform to the by-laws, rules and regulations of the Society. These signatures would be found extremely interesting by the graphologist, comprising those of every variety of class and condition. He is also given a depositor's number. After this formality has been duly complied with the depositor is given a deposit card which is handed to the receiving teller in the usual way.

The amount of deposit is then entered in a pass book which is handed to the depositor.

When money is withdrawn the depositor makes out a withdrawal card.





Form 5.

*Incorporated 1849.*

SOCIETY FOR SAVINGS

In the City of Cleveland.

*No.*.....

If convenient, present this Card when you re-open your account.

Form 2. DEPOSIT

No..... $.....

.....

.....

Date.....

O O

Form 3. WITHDRAWAL

No..... $.....

.....

.....

Date.....

O O

Form 4. CLOSED ACCOUNT

No..... $.....

Received of the SOCIETY FOR SAVINGS the above sum.

.....

.....

Date.....

O O

3

493433

| Date | | | Dr | | | Cr | | | Balance | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| July | 15 | 1903 | | | | | 300 | | | 300 | |
| " | 15 | " | | 10 | | | | | | 290 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

If total deposit is withdrawn and account closed a special card is used, constituting a receipt in full for amount on deposit. The depositor is at the same time handed a special card, bearing the number of his account, with a request that same be presented if account is reopened.

The accounts are divided into sections of 10,000 accounts, and to each section a book-keeper is assigned. The card system is used for ledgers, a separate tray being provided for each thousand accounts. As each tray really constitutes a separate ledger each bookkeeper controls ten ledgers. The book-keepers' desks are arranged in double lines across the office.

As above stated, the ledger cards are indexed, and the guide cards have large projections on the left for convenience of the book-keepers in quickly securing any desired card. These large projections give numbers in ten—the small projections units from 1 to 9. Thus, to find account No. 493,433 look for guide 49,343 and following card 3. A card index of names and numbers of accounts is kept for miscellaneous reference.

We will suppose that our bookkeeper is enlightened and progressive, and desires to prove each day's work as he goes along, so as to be able to get his balance promptly without trouble on the first day of the month.

He will post from his sales book, or ticket, $484.26. As he posts the amount in the ledger he extracts his proof figure "4," and writes it in the sales book in a column which he arranges for the purpose.

The proof figure of the footing of the sales book will then prove the accuracy of the postings to the ledger for the day by agreeing with the footing of the column of proof figures in the sales book which represent the postings to the ledger. The same operation will prove the accuracy of the day's postings from the cash book, journal, purchase record, or any other book, so that it is within easy reach of every bookkeeper with extraordinarily little trouble to prove each day's work as he goes along, and to be free from all bother and trouble of errors when he endeavors to obtain his monthly trial balance.

In order to make this matter perfectly clear, we append an explanation representing one day's work from the cash book and its proof.

The amounts posted to the ledger from the sundries column of the cash received side of the cash book are represented by the check figures in the check column, the footing of which is 29, or 9 minus 2 equals 7. The check figure extracted from the total of the sundries column—$12,578.68—is also "7," thus proving the postings to be correct for the day. The postings from the sales book, journal, etc., are treated in like manner, each section of the work being thus proved separately and easily.

In entering balances from the ledger into the trial balance book the check figure should be extracted first, and the amount copied from the ledger after. The footing of the check figures will then check the correctness of the amounts in the trial balance book, which have been copied from the ledger, and any errors will be promptly located.

### (364) CASH ACCOUNT.

A ledger account to which the balance of cash on hand is posted at the end of each month for trial balance purposes. Some accountants prefer to post total receipts and total expenditures, drawing off the balance in the usual way.





### (365) CASH ASSETS.

Checks and currency received from customers, tenants, etc.

### (366) CASH BALANCE RECORD.

This is a cashier's financial statement to the proprietors of the business. It is a summary of the cashier's daily cash balance. This statement or report should be made in duplicate, the original going to the executive officer and the duplicate being retained for reference.

Some of these daily balance books or records are very elaborate, being copies of almost the entire cash book entries for the day. This is unnecessary trouble, as the totals of the columns in a columnar cash book should in most cases be sufficient. When details are required they can be obtained by reference to the cash book.

In form two note the itemized cash count and list of checks, etc., deposited.

Where a daily balance book or record is used and the copy handed each day to the principal, it is a very useful preventive of subsequent alterations of the figures on the cash book.

A more detailed form of cash statement is shown in form 3, this being a weekly report from branch to main office. The balance, as per previous report, is first shown, the total cash receipts for the week are entered in one amount, and the expenditures are then entered in detail and vouchers accompany the report. If a traveling auditor visits the branch at short intervals, this report may be considered unnecessary, but where this is not the case, it will be found extremely useful in calling attention to undue or improper expenditures.

A very good method of recording daily cash balances is to use a form arranged to show exactly of what the balance of cash consists, viz., checks, currency, due bills, ticket, etc. Such a record should be kept in duplicate, the original being handed each day to the treasurer or manager of the business and the duplicate retained by the cashier. The following form of daily report possesses merit, and will probably suggest good ideas to those interested:

| | |
|---|---|
| Cash received 2/1 to 2/14 inc. | ..... |
| Cash received 2/15 | ..... |
| Cash received to date | ..... |
| Balance in bank 2/14 | ..... |
| Cash deposited 2/15 | ..... |
| Less: | |
| Checks issued 2/15 | ..... |
| Bills payable paid 2/15 | ..... |
| Balance in bank 2/15 | ..... |
| Cash in drawer 2/15 | ..... |
| Bills receivable in bank for collection 2/15 | ..... |
| Bills receivable in drawer 2/15 | ..... |

| | |
|---|---|
| Bills receivable in bank to discount 2/15 | ..... |
| Total available 2/15 | ..... |
| Sales 2/1 to 2/13 inc. | ..... |
| Sales 2/14 | ..... |
| Sales to date | ..... |
| Average sales for the month | ..... |
| Sales same day last month | ..... |
| Sales same day last year | ..... |
| Accounts outstanding 2/1 | ..... |
| Sales to date | ..... |
| Total receipts and allowances to date | ..... |
| Balance accounts outstanding 2/15 | ..... |

## (367) CASH AND BANK ACCOUNT.

This is one of the most important elements of the accounting system of any business. The man who handles the cash holds a very responsible position, and is always surrounded by more or less checks on his work.

The double entry cash book carries receipts on the left hand page and payments on the right hand page, and is self-proving by inclusion of the balances on hand at the commencement and close of any particular period.

Where businesses are very large and the detail is very great separate books are used for cash receipts and cash payments, each book being in charge of a separate clerk. For facility of posting, it is frequently arranged that there shall be alternate cash books, one being used for Mondays, Wednesdays and Fridays, and the other for Tuesdays, Thursdays and Saturdays.

The debit and credit to cash on double entry casn books is usually referred to as "automatic." This is explained by the following illustration of cash account:

DAILY CASH BALANCE — CARBON COPY — DEC. 1, 1905

| CURRENT FUNDS RECEIVED | | | | | | CURRENT FUNDS PAID AND DEPOSITED | | | | | | BANK BALANCE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FROM | FOR ACCT OF | NO | MDSE DISCT | NET CASH | BALANCE | FOR | FOR ACCT OF | NO. | NET CASH | MDSE DISCT | | CHECKS | DEPOSITS |
| BALANCE | IN SAFE | | | | 310 84 | BANK BAL | IN DEPOSIT | | | | | | 15698 95 |
| MARSHALL FIELD | INT. 9/10 - 6% | 5373 | 18 52 | 258 97 | | VOUCH CASH | CHAS. ELLSWORTH | | 10 50 | | | | |
| JUDSON HARMON | " 9/20 - 4% | 1195 | 61 78 | 1650 72 | | H.N. BERING | BILL TO WILLIAMS | | 13 00 | | | | |
| HEARST & CO. | ON NOTE " 1/20 DS | 1392 | | 75 50 | | ILY & M.R.R. | FREIGHT BILLS | 1982 | | | | 107 35 | |
| H.W. JENNINGS | ON ACCT. OFT | 4386 | | 500 00 | | MORRIS BROS | INT. 7/20 - 4% | 1983 | | 31 70 | | 1523 40 | |
| | MDSE DISC. ON ABOVE | | 20 83 | | 2465 19 | CANNON & COOK | INT. 1/20 NET | 1989 | | | | 534 70 | |
| | ALLOWED AT 4% | | 106 19 | | | DEPOSITED | | | 2000 | | | | 2000 |
| | | | | | | | MDSE DISC. ON | | | 31 70 | | 2189 92 | 17698 95 |
| | | CASH COUNT | | | | | | | | | | CHECKS OUT | 2189 92 |
| | CHAS | 1338 | 400 00 | | | BALANCE | IN BANK | | | | | | 15509 03 |
| | CU- $20 | - 4 | 80 00 | | | CASH | PAID OUT FOR | | 1032 50 | | | | |
| | $ 10 | - 5 | 50 00 | | | CASH | IN SAFE | | 761 79 | | | | |
| | $ 5 | - 21 | 105 00 | | | PETTY CASH BOOK | PETTY CASH EXP | | 11 75 | | | | |
| | $ 2 | - 10 | 20 00 | | 2796 07 | | | | 2796 07 | | | | |
| | $ 1 | - 6 | 6 00 | | | MEMO DEPOSIT | | | | | | | |
| | .25¢ | - 3 | 75 | | | CHICAGO $ 32 - 3689 | | | | | | | |
| | 1¢ | - 4 | 04 | | | BOSTON " 1183 - 1650 72 | | | | | | | |
| | | | 761 79 | | | BALTIMORE 1932 - 1250 | | | | | | | |
| | EXP BOOK | | 11 75 | | | CURRENCY | 145 | | | | | | |
| | BALANCE | | 723 54 | | | | $200000 | | | | | | |
| DEC 2 | BALANCE | | | | 723 54 | | | | | | | | |

FORM 2.





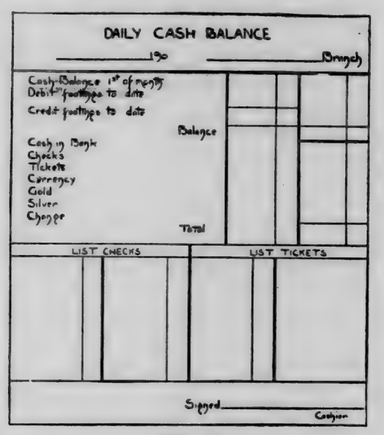
CASH STATEMENT FOR WEEK ENDING _____ 190 1 _____ BRANCH

| DATE | | ACCOUNT | DESCRIPTION | VOUC HER | DR | | CR | |
|---|---|---|---|---|---|---|---|---|
| OCT. | 12 | BAL. IN BANK $214 96 CASH 211 81 | CHECKS $1762 90 TICKETS $12 91 | | 3201 | 97 | | |
| | | RECEIPTS FOR WEEK | | | 3472 | 83 | | |
| | | | CHARGES FOR WEEK RECEIPTS ATTACHED | | | | | |
| OCT. | 14 | OSGOOD MFG CO. | TO BAL 9/c | 1417 | | | 19 | 60 |
| | | GENERAL OFFICE | REMITTANCE ON 9/c | 1418 | | | 2500 | 00 |
| | 15 | " EXPENSE | W U TELEGRAMS | 1419 | | | 20 | 35 |
| | | MAINT. FURNITURE & FIXTURES | REPAIRS TO DESK | 1420 | | | 7 | 30 |
| | | GENERAL EXPENSE | POSTAGE STAMPS | " | | | 10 | 00 |
| | | " " | STATIONERY | " | | | 3 | 50 |
| | | " " | SUBSCRIPTIONS TO DAILY NEWS | " | | | | 60 |
| | | " " | RUBBER STAMP | " | | | | 40 |
| | | MAINT. HORSES & WAGONS | HORSESHOEING | " | | | 4 | 75 |
| | 16 | TRAV EXPENSE | J.B. WILLARD EXP 9/c | 1421 | | | 18 | 45 |
| | | MAINT. OF BUILDINGS | REPAIRS TO CHIMNEY | 1422 | | | 10 | 50 |
| | | CLAFLIN MILLS & CO. | TO BAL. 9/c | 1423 | | | 156 | 70 |
| | 17 | TRAV EXPENSE | RR MILEAGE BOOK FOR J.B.W. | 1424 | | | 50 | 00 |
| | | BILLS PAYABLE | NOTE OF JONES CAESAR & PALMER | 1425 | | | 500 | 00 |
| | | ADVERTISING | CIRCULARS TO THE TRADE | 1426 | | | 19 | 80 |
| | 18 | MARCUS & WOODS | TO BAL 9/c | 1427 | | | 110 | 20 |
| | | JAMES & CO. | " " " | 1428 | | | 34 | 07 |
| | | PETERSON & HENSON | " " " | 1429 | | | 10 | 25 |
| | 19 | MAINTENANCE OF REAL EST. | DRAINING & LEVELING ROADWAY | 1430 | | | 95 | 50 |
| | | DIRECT LABOR | WORKMEN'S PAY-ROLL | 1431 | | | 425 | 00 |
| | | INDIRECT | OFFICE SALARIES & FOREMAN | " | | | 309 | 00 |
| | | | BAL IN BANK 780.40 | | | | | |
| | | | CASH 110.22 | | | | | |
| | | | CHECKS 434.10 | | | | | |
| | | | TICKETS 10.10 | | | | 1334 | 82 |
| | | | | | 5674 | 80 | 5674 | 80 |

EXAMINED AND APPROVED _____
RESIDENT MANAGER

FORM 3.

| | | | |
|---|---|---|---|
| Jan. | 2. | Cash on hand | $ 750.00 |
| Jan. | 2. | Cash Receipts | 200.00 |
| Jan. | 3. | Cash Receipts | 450.00 |
| Jan. | 5. | Cash Receipts | 600.00 |
| Jan. | 31. | Cash Receipts | 290.00 |
| | | | $2,290.00 |
| Jan. | 2. | Cash Payments | $ 65.50 |
| Jan. | 3. | Cash Payments | 126.00 |
| Jan. | 5. | Cash Payments | 468.00 |
| Jan. | 31. | Cash Payments | 75.00 |
| | | Bal. on hand | 1,555.50 |
| | | | $2,290.00 |




FORM 1.

On Saturday, Dec. 31st, the ledger account shows a debit to cash of $750. If, therefore, all the above items are posted to cash account in detail or in daily totals, the result would be a debit balance on Jan. 31st of $1,555.50, but in order to save trouble and unnecessary labor, it is usual to simply rule a line under the "balance on hand" Jan. 2, $750, the next posting being the balance on Jan. 31st of $1,555.50. This amount is incorporated in the trial balance, and this entry answers every purpose, it being understood that cash has been debited with all the receipts on the cash book, and credited with all the payments, leaving $1,555.50 on hand. Another method is to post the total of the cash received on "debit to cash" side for the month to the debit side of cash account, and to post the total of cash paid or credit to cash side at the end of the month to the credit of cash account, which furnishes the same balance for incorporation in the trial balance.

The method of dividing cash account into main cash and petty cash with separate books for each will be treated under the heading of "Petty Cash."

One of the best methods of arranging the cash department of a business is the following:

Deposit all receipts and credits, and the bank pass book will then always equal the receipts in the cash book less exchange.

Pay everything by check with the exception of small incidental expenses.

Draw checks for currency to meet incidental expenses and provide a separate column for such payments, charging the cashier with the amount of checks drawn for this purpose, and holding him responsible to furnish vouchers for all disbursements.

For the purpose of checking the amount of receipts entered on the cash book, a method frequently adopted is for the officer or other person who





opens the mail to make a memorandum of the checks, money orders, notes, etc., contained in the envelope which he opens, and some time thereafter this memorandum is compared with the entries on the cash book.

In some businesses the cashier is permitted to carry an "over and short" account, to which are debited or credited differences for which he is unable to account. This is certainly conducive to carelessness, and the practice is to be discouraged. While it may not be strictly equitable, yet it has been found that the best method of making the cashier equal to his responsibilities is to charge the account with all shortages and to credit any overages to the profit and loss until accounted for.

The best method of treating cash sales will be found under that heading.

The cash book usually shows a balance of cash both on hand and at bank, but there are many different methods of arranging this form of record.

Sometimes the cash balance shows the total of cash on hand and at bank in one amount, but the check register, or stub, of check book must be consulted to find how much is on hand and how much is at the bank.

Sometimes bank columns are provided on each side of the cash book, and when this is the case, bank deposits are usually entered on the cash paid side as a charge to the bank, while the amount of checks issued are entered in the bank column on the cash receipt side as a credit to the bank; thus reversing the method used in the same book in regard to cash on hand. Where cash on hand and at bank are distinguished in this way, we think the same rule should apply to both, that the deposits in bank should be entered in the column adjoining the cash receipts, and that the record of checks issued should be entered in the column on the cash paid side adjoining the payments. This will be found particularly convenient where it is the practice to deposit all receipts and make all payments by check, using the petty cash book for incidental expenditures. The deposits in the bank column will then equal the amount of receipts and the total of the bank withdrawal column will equal the total of the checks issued.

When bank columns are used it is scarcely necessary to say that the items of receipts and payments should not be entered in detail in the bank columns, as this, of course, involves double entries for every amount. Not more than one entry in the bank withdrawal column should be made per page, and only the total of each deposit should be entered in the bank deposit column.

Where the bank withdrawal column is placed on the cash received side of the cash book and the bank deposit column on the cash paid side of the cash book, it is interesting to note the actual course of the entries. Under these circumstances the cash received side will contain entries of the following different descriptions:

1. Credits to customers for value received.
2. Debits to cash for same.
3. Credits to bank for cash paid out obtained from cash at bank.

Inasmuch as cash in the office safe and cash at the bank are equally available and constitute part of the same fund, it does not seem consistent to debit and credit cash on the same side of the cash book.

## (368) CASH AND BANK RECONCILIATION.

THE RECONCILIATION ACCOUNT.

How many bookkeepers are in the habit of preparing a reconciliation account, bringing the cash book and the bank pass book balances into harmony monthly? I have no doubt but that almost every bookkeeper proves the one against the other, by checking and ascertaining the outstanding checks which when presented at the bank will make the balances coincide. This is probably figured out on a slip of paper, and when the reconciliation has been effected to the satisfaction of the bookkeeper, the slip is destroyed. Very few accountants ever put into shape of a permanent record this account, which is of so much assistance to the auditor when he comes to check up the work of the office. Not only is it useful in an audit, but much time is saved the bookkeeper himself, if from the nature of the business many checks are liable to be outstanding, some of them perhaps for two or three months. This condition of affairs does not so frequently obtain in commercial as in municipal offices, and in the latter case it is especially valuable. With those who are in the habit of recording this account in a shape for future reference, the work is generally kept on the stub of the check book, more particularly so if the bank account is kept on the stubs. Where the bank account is made an integral part of the cash book, however, I always recommend that a special book shall be kept for the purpose, and in something like the illustration.

Upon receipt of the bank pass book with the February account written up, the bookkeeper proceeds to check up, and after clearing off the business of the month just closed, he finds that the bank has charged two or three items not in the current month's business. Without searching back through hundreds of stubs to ascertain what these items represent, he at once turns to his reconciliation account for the preceding month, and finds that of the outstanding checks at the close of the month Nos. 330, 375 and 380 have been paid. Of the old checks, Nos. 332 and 333 are still outstanding, and these are brought down to the next account, which will look about as below:

| | | | | |
|---|---|---|---|---|
| 1899. | | | | |
| Feb. 28. | Bank balance per Cash book..... | ..... | ..... | $783.75 |
| | Bank balance per Pass book..... | ..... | $992.37 | ..... |
| Less O/S Cheques: | | | | |
| | No. 332—Smith ..... | $ 37.50 | ..... | ..... |
| | No. 333—Thomson ..... | 70.00 | ..... | ..... |
| | No. 396—Meeking ..... | 14.28 | ..... | ..... |
| | No. 402—Somers ..... | 50.00 | ..... | ..... |
| | No. 417—Mitchell ..... | 36.84 | 208.62 | 783.75 |





The outstanding checks of the longest duration also come first on the list, and thus a quick reference tab is kept upon them, and after a sufficient length of time has elapsed, duplicates may be issued, or steps taken to cancel the payment of the outstandings, as the circumstances may require.

## (369) CASH BOOK.

Several forms of cash book are appended hereto, and should be of interest to our readers who may be able to obtain useful ideas therefrom.

Cash Book No. 1 is used in a large manufacturing and foundry business. Note the treatment of Bank account.

CASH RECEIVED

| DATE | | NAMES | FOLIO | DISCOUNT | ACCOUNTS RECEIVABLE | ACCOUNTS PAYABLE | GENERAL LEDGER | FOUNDRY | M'F'G. | BANK DEPOSITS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

No. 2 is a combined wholesale and retail business. It is quite customary to carry an account with Interest and Discount, but this plan is not to be commended as it does not furnish sufficient statistics.

No. 3 is used in a store manufacturing fixtures and furniture. It will be seen that they do a large country business and therefore provide a separate ledger for this section of the business.

No. 4 is arranged for a department store.

No. 5 is in use at a large hotel.

CASH PAID

| DATE | | NAMES | FOLIO | DISCOUNT | ACCOUNTS PAYABLE | ACCOUNTS RECEIVABLE | GENERAL LEDGER | FOUNDRY | M'F'G. | M'F'G. EXPENSE | OFFICE EXPENSE | BANK WITHDRAWALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Cash Receipts.

| Date | Names | Folio | Sales Ledger | | Genl Ledger | | Cash Sales | | Notes Recvble | | Interest & Discount | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |

Cash Payments.

| Date | Name | Voucher No. | Accounts Payable | | Folio | Genl Ledger | | Sales Ledger | | Expense | | Postage | | Freight & Express | | Office Supplies | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | |

Cash Receipts

| Date | Name | Folio | Country Ledger | | City Ledger | | Genl Ledger | | Store Fixtures | | Furniture | | Bank | | Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | |

CASH PAYMENTS

| DATE | NAME | VOUCHER NO | ACCOUNTS PAYABLE | | FOLIO | GEN'L LEDGER | | EXPENSES | | STORE FIXTURES | | FURNITURE | | BANK | | TOTALS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |





CASH RECEIVED

| DATE | NAMES | FOLIO | ACCOUNTS RECEIVABLE | | GENERAL LEDGER | | CASH SALES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DEPT 1 | | DEPT 2 | | DEPT 3 | DEPT 4 |
| | | | | | | | | | | | | |

CASH PAID

| DATE | NAMES | FOLIO | ACCOUNTS PAYABLE | | GENERAL LEDGER | | EXPENSES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DEPT 1 | | DEPT 2 | | DEPT 3 | DEPT 4 |
| | | | | | | | | | | | | |

WESTMINSTER HOTEL

Cash Receipts Date_____190___ Cash Expenditures.

| | Miscellaneous | Guests | Folio Book | Room | Name | Explanation Left After | Folio | Room | Name | Guests | Provisions | Expenses | Help | Miscellaneous | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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## (370) CASH JOURNAL.

No. 6 belongs to a large dry goods establishment with city and country trade.

No. 7 is a Cash Journal for a brewery, although it is headed "Cash Book."

No. 8 is used by a concern doing an instalment business as a side line.

No. 9 is a Cash Journal in use by the Secretary of a Fraternal Society. The columns headed "Treasurer" take the place of those usually headed "Cash."

Dr

## Cash-Journal

| General Expenses | Country Ledger | | City Ledger | | Deductions | Stores | General Ledger | Voucher Account | Cash | Folio |
|---|---|---|---|---|---|---|---|---|---|---|
| | Regular | C.O.D. | Regular | C.O.D. | | | | | | |

## Cash-Journal

Cr

| Particulars | Folio | Cash | Voucher Account | General Ledger | Stores | City Ledger | | Country Ledger | | General Expenses |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Regular | C.O.D. | Regular | C.O.D. | |

Dr.

## Cash Book.

| Date | | Presents | Discount and Allowances | L. F. | Cash | Bank | Cash Sales | Customers Ledger | General Ledger Sundries |
|---|---|---|---|---|---|---|---|---|---|

## Cash Book.

Cr.

| Date | | Va. No. | Discounts | L F | Cash | Bank | | General Ledger Sundries | Delivery Expense | Empties Expense | | Bottles and Bottling Supplies | | Bottled or Other Goods | | Customer Ledger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ck. No. | Amount | | | Drivers | B.&M.Acc. | Stock L.F. | Amount | Stock L.F. | Amount | |





## JOURNAL CASH BOOK

| DATE | NAMES | TOWN | STATE | REMARKS | CUSTOMERS | | |
|---|---|---|---|---|---|---|---|
| | | | | | DEBIT | CREDIT | CREDIT DIS & EXP ON COLLECTIONS |

## JOURNAL CASH BOOK

| | GEN LEDG ACCTS | | CREDITORS | | SALES CREDIT | | INT & DIS. | | CASH | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DEBIT | CREDIT | DEBIT | CREDIT | TIME | CASH | DEBIT | CREDIT | DEBIT | CREDIT |

Dr. April 1900 Cash Journal Cr.

| General Ledger | Members Ledger | Treasurer | Folio | NAMES | Date | NAMES | Folio | Treasurer | Members Ledger | General Ledger |
|---|---|---|---|---|---|---|---|---|---|---|

Dr. CASH JOURNAL Cr.

| Expense | Wages | Commission | Discount Received | Accounts Payable | General Ledger | Cash | L.F. | Date | Particulars | L.F. | Cash | General Ledger | Discount Allowed | Accounts Receivable | Bank Deposit Tax | Bank Withdrawals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 75 50 | | Jan 2 | Balance. | | | 75 50 | | | | |
| | | | | | | 12 00 | | " 5 | John Smith on % | | | | | 12 00 | | |
| | | | | | | 30 00 | | " " | Wm Johnson | | | | | 30 00 | 42 00 | |
| | | | | 40 00 | | | | " " | Hansen & Co. | | 380 00 | | 20 00 | | | 38 00 |

**CASH JOURNAL**

| Date | Names of Accounts | Cash | | Bank | | Accts Receivable | | Petty Accts Receivable | Folio | General Ledger | | Dept A | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Dr | Cr | Dr | Cr | Dr | Cr | Cr | | Dr | Cr | Dr | Cr |
| | | | | | | | | | | | | | |

**CASH JOURNAL**

| Dept. B. | | Dept. C. | | Dept. D. | | Dept. E. | | Dept. F. | | General Expense | Proprietor's Account |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Dr. |
| | | | | | | | | | | | |

No. 10 is a Cash Journal used in a business where all receipts are deposited in bank and all expenditures made by check.

No. 11 is a Cash Journal for a department store owned by a single proprietor.

### (371) CASH DISCOUNT.

A deduction from the principal on account of cash anticipations or other agreed terms.

An allowance or rebate in consideration of a note being liquidated before due date.

The custom of discounting trade bills for cash at ten days, etc., is now conveniently provided for in cash books and cash journals by special Discount columns. At the end of the month the total of the Discount column is charged or credited to Cash column, whether it is in respect of accounts with customers or creditors if receipts and expenditures are entered in total.

Much has been said and written regarding the relative merits of posting the total amount of bill to the credit of customers' accounts, and the





posting of the cash and discounts separately. After reviewing the matter very carefully and considering both sides of the question, we are in favor of posting the cash and discount separately, as this facilitates the audit of the books and also gives information in the ledger account which does away with the necessity of referring to the Cash Book for further particulars.

When arranging for separate Accounts Receivable Ledgers where controlling accounts are carried, it is desirable to provide a separate discount column for each sales ledger, as otherwise the items must be picked out at the end of each month in order to arrive at the necessary agreement.

Where the net amounts of remittance and discount allowed are posted separately to the credit of the customer's account it is better to arrange for the discount and ledger columns to be adjacent. Also, in this case it is desirable to provide separate discount columns for each ledger, as otherwise the items must be dissected in order to make the necessary credits to the Controlling accounts.

We do not approve of recording customers' deductions on the credit side of the Cash Book, as it involves unnecessary duplication in rewriting names. The Discount column, when placed adjacent to the amount of customers' remittances, answers every purpose and affords the most convenient reference possible.

There has been considerable discussion in regard to the proper method of treating both Discount on Sales and Discount on Purchases, and after considering the matter very carefully, we have arrived at the conclusion that while Discount on Sales is properly a selling expense, Discount on Purchases should be included in Trading account, because it reduces the cost of production.

The question is frequently raised as to whether when goods are sold delivered but freight is not prepaid, the cash discount should be deducted from the gross amount of the bill or from the net amount after freight has been deducted. When goods are sold delivered the freight is generally included in the price, i. e., the price of the goods delivered is higher than the price of similar goods sold f. o. b. point of shipment. The shippers, therefore, frequently claim that cash discount should not be deducted from gross amount of invoice, but from that amount less freight, and in the coal and lumber business, where freight is one of the principal components of the amount charged for the goods, business usage appears to have decided that freight shall be deducted prior to taking off cash discount, as the freight is paid to the railroads in full. On the other hand, however, the purchasers of goods claim that when buying f. o. b. at destination, the question of freight does not concern them, and that in fact, in paying the freight in order to clear the goods they are making an advance on account of the shippers, on which advance they are entitled to interest.

It would seem that where freight is prepaid as an accommodation to the customer cash discount should not be deducted from the amount thereof, but wherever it is included in the price as an inducement to obtain the order,

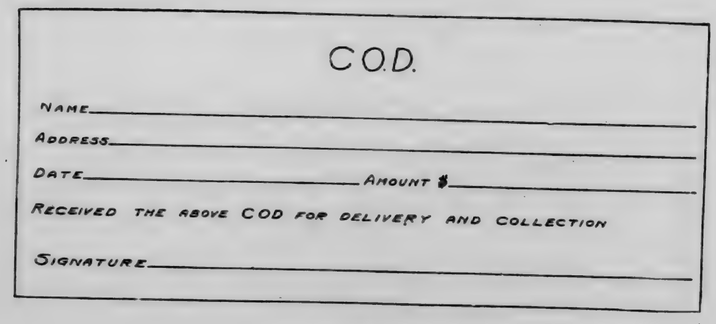
the customer would be acting perfectly within his rights in deducting cash discount, unless there was an agreement or understanding with the seller to the contrary.

There are many methods of keeping track of bills so as to secure the cash discount, such as special columns in the ledger or purchase journal, ticklers in which to keep the bills and other similar devices. A diary seems to be as good a plan as can be adopted, the dating of the bill being entered under the proper date when received or when they are entered on purchase or voucher records. In this way no bill can be lost sight of, and no cash discount can be overlooked.

When bills are discounted regularly, it is a common practice to make no entry on the books until payment, when net amount is credited to cash and charged to purchase account or to the department to which they belong. By so doing the discount is charged against gross profit, i. e., the purchases included in the trading account are diminished by the amount of the discounts. The question has, therefore, come up on various occasions as to whether cash discounts should not be charged to trading account instead of to profit and loss account, in all cases where the gross amount of the invoices is entered on books of account. Cash discount is generally looked upon as a revenue item, and for statistical purposes it is doubtless more convenient to express it separately on the profit and loss account, as in that statement it impresses the business man as it does not when incorporated in the trading account as a reduction of the purchase price of the goods bought. It is undoubtedly interest earned on money advanced, and as such should be exhibited in a special account for comparative purposes.

### (372) CASH ON DELIVERY.

In businesses where this is an important department, it will be found very convenient to provide for separate columns in the cash book for such sales. A separate C. O. D. account should be carried in the general ledger to


C.O.D.

NAME_____

ADDRESS_____

DATE_____ AMOUNT $_____

RECEIVED THE ABOVE COD FOR DELIVERY AND COLLECTION

SIGNATURE_____





which should be credited the amounts of C. O. D. columns from cash books, and all returns, and to which should be charged the total of C. O. D. sales. This account will then at all times show the amount of C. O. D.'s outstanding.

The handling of "collect on delivery" packages is always an annoying matter to the cashier. The following plan is proposed for the purpose of doing away with the cumbersome record usually used.

The C. O. D. order is handled in all respects like a charge order, except that a C. O. D. ticket is made in duplicate. This ticket is signed by the driver or messenger who takes the package for delivery. The signed ticket is treated as cash. When the actual cash is turned in the messenger is given the ticket, and he has the privilege of destroying it. If the goods are returned, the ticket is taken out only when a refund voucher is issued to take its place.

The C. O. D. sale being rung up or otherwise recorded just the same as a cash sale, no other record than the signed ticket is necessary and the task of caring for a large number of such sales is reduced to a minimum

### (373) CASH PRICE.

The price of articles paid for in cash at the time of purchase, in distinctin from the barter and credit prices. A sale for cash is a sale for money in hand.

### (374) CASH REGISTERS.

See calculating machines.

### (375) CASH SALES RECORD.

### (376) CASH SALES SLIPS.

See Department and General Store Accounting.

### (377) CASH VOUCHER.

A receipt, or explanatory memorandum, in connection with cash payments required for auditing purposes.

### (378) CASHIER.

In mercantile establishments the cashier is the clerk who keeps the cash book and handles the cash.

In banks the cashier is usually the chief of the accounting department, ledger and all other clerks being included in his jurisdiction. In small banks the cashier is frequently entrusted with the sole management.

In corporations the treasurer controls the cashier's department, and frequently assumes the cashier's duties.

## (379) CERTIFICATE OF AUDITOR.

In certifying to the Balance Sheet or the accounts which have been audited, it is necessary for the auditor to be very particular to see that (1) the liabilities are all included; (2) the assets are not inflated; (3) that fictitious assets are so defined; (4) that the profit and loss account includes all chargeable expenses for the period covered by the audit, whether paid or unpaid; (5) that all profits earned are included.

A number of accountants in good practice have hit upon the expedient of presenting to their clients two Balance Sheets in cases where the values of the fixed assets have been very much inflated in order to offset the capitalization. One balance is based on book values, and the other balance sheet is based on such values as the accountant considers fair and reliable.

## (380) CERTIFICATE—ARCHITECT'S.

See Accounting for Architects, par. 163.

## (381) CERTIFICATE—AUDITOR'S.

See Auditing—par. 178.

## (382) CERTIFICATE—CORPORATION STOCK.

See Stock.

## (383) CERTIFIED CHECK.

A promise to pay on demand on which is endorsed the agreement of a bank to pay on presentation by the holder.

A check which has been recognized by the proper officer as a valid appropriation of the amount of money therein specified to the person therein named, and which bears upon itself the evidence of such recognition.

Certified checks are regarded as the equivalent of cash and used as deposits to insure the fulfillment of contracts where cash deposits are considered necessary.

It has been held by the United States Courts that a certification of a check is a declaration on the part of the bank that it has taken from the account of the signer money enough to pay it, and holds the same subject to the payee or his assigns, no matter how long the delay in presentation. According to this decision payment on a certified check cannot be stopped.

## (384) CERTIFIED PUBLIC ACCOUNTANTS.

SAMPLE STATE ACT.

*An Act to establish a Board for the examination of accountants, to provide for the granting of certificates to accountants, and to provide a punishment for the violation of this Act.*

Section I.—BE IT ENACTED by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same, that any citizen of the United





States residing or having an office for the regular transaction of business in the State of Pennsylvania being over the age of twenty-one years, and of good moral character, and who shall have received from the Governor of the State of Pennsylvania a certificate of his qualification to practice as a public expert accountant as hereinafter provided, shall be designated and known as a certified public accountant, and no other person shall assume such title or use the abbreviation C. P. A., or any other words, letters or figures to indicate that the person using the same is such certified public accountant. Every person holding such certificate and every co-partnership of accountants, every member of which shall hold such certificate, may assume and use the title of certified public accountants, or the abbreviation thereof, C. P. A., provided that no other person or co-partnership shall use such title or abbreviation, or other words, letters or figures to indicate that the person or co-partnership using the same is such certified public accountant.

Section II.—The Governor of the State of Pennsylvania shall appoint a Board of five examiners for the examination of persons applying for certification under this act. Three of said examiners shall be public accountants, who shall have been in practice as such for at least five years, one of whom shall be appointed for the term of one year, one for two years, and one for three years, and upon the expiration of each of said terms an examiner shall be appointed for the term of three years, and after one thousand eight hundred and ninety-nine, these three examiners shall be certified public accountants. The other two examiners shall be practicing attorneys in good standing in any of the Courts in the State of Pennsylvania. One of them shall be appointed for the term of one year and the other for two years, and upon the expiration of each of said terms a successor shall be appointed for the term of two years. The examination for certificates shall be based upon an examination in commercial law and general accounting; said examination shall take place in Philadelphia, Harrisburg and Pittsburg, twice a year, during the months of May and November of each year, under such rules and regulations as may be adopted by the Board. The fees provided by this act shall be twenty-five dollars for each applicant, from which shall be paid for the expenses incident to such examination, for stationery and clerk hire, a sum not exceeding two hundred dollars, and if any surplus above said expenses shall remain at the end of any year it it shall be paid, after the travelling expenses of the Board shall be deducted therefrom, into the treasury of the Commonwealth. The results of such examination shall be certified to the Governor and filed in the office of the Secretary of Internal Affairs, and kept for reference and inspection for a period not less than five years, the Governor to issue the certificates.

Section III.—The Governor of the State of Pennsylvania may revoke any such certificate for sufficient cause upon the recommendation of the Board of Examiners, who shall have given written notice to the holders thereof, and after he has had a hearing thereon.

Section IV.—The Board of Examiners may in its discretion waive the examination of any person who shall have been for three years before the passage of this act, practicing in the State of Pennsylvania as a public accountant, and who shall apply in writing for such certificate within one year after the passage of this act.

Section V.—If any person shall hold himself out as having received the certificate provided for in this act, or shall assume to practice thereunder as a certified public accountant, or use the initials C. P. A. without having received such certificate, or after the same shall have been revoked, he shall be deemed guilty of misdemeanor, and on conviction thereof shall be sentenced to pay a fine not exceeding five hundred dollars.

### (385) CERTIFIED STATEMENT.

A verified statement. In cases of liquidation or bankruptcy, statements of claim must be verified by being sworn to before a Notary Public.

### (386) CHARGE.

A debit to an account, whether from original, adjusting cross-entry books, or any other source.

It may be noted that while the term "charge" has to a certain extent supplanted the use of the word "debit," no similar interchangeable expression has been found to take the place of the word "credit."

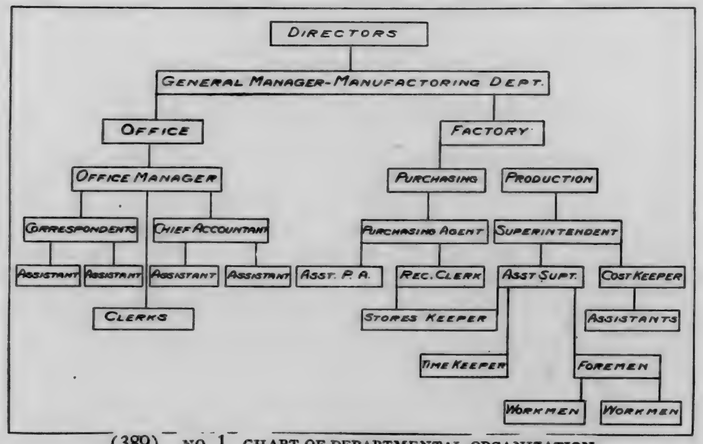
### (387) CHARGE—FIXED.

A term used to define such expenses as occur regularly from year to year, such as rents, rates, taxes, interest on funded debt, etc.

### (388) CHART OF CLASSIFICATION.

A SECTIONALIZED SUMMARY OF BUSINESS ACCOUNTING RECORDS.

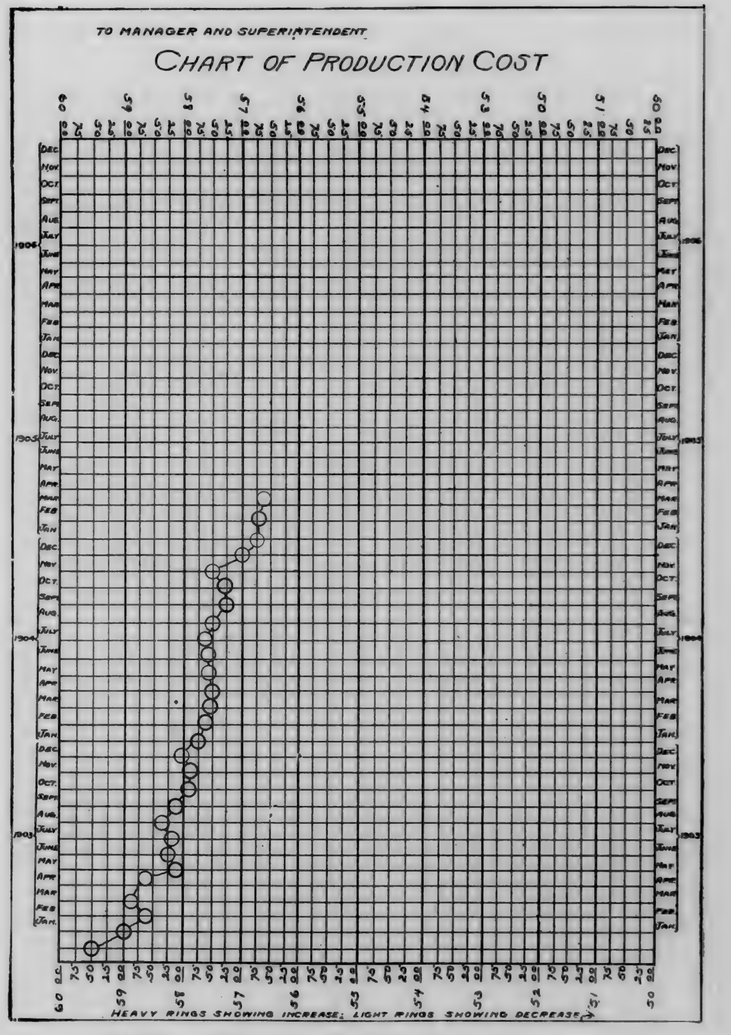
We present, as illustrations, the following charts:



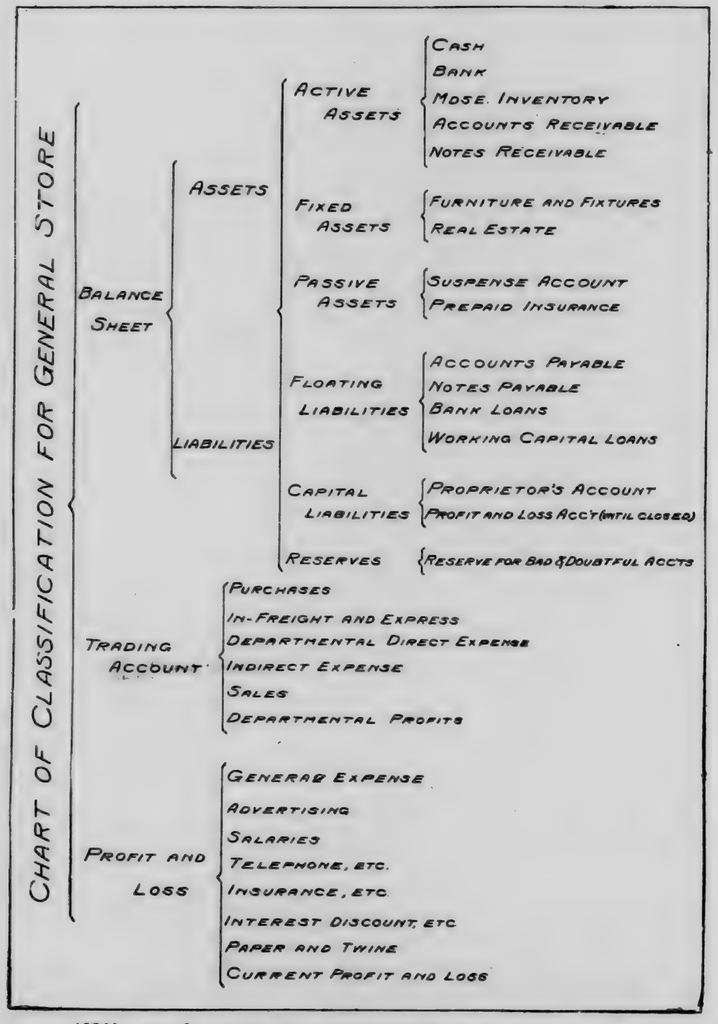

(389) NO. 1. CHART OF DEPARTMENTAL ORGANIZATION.







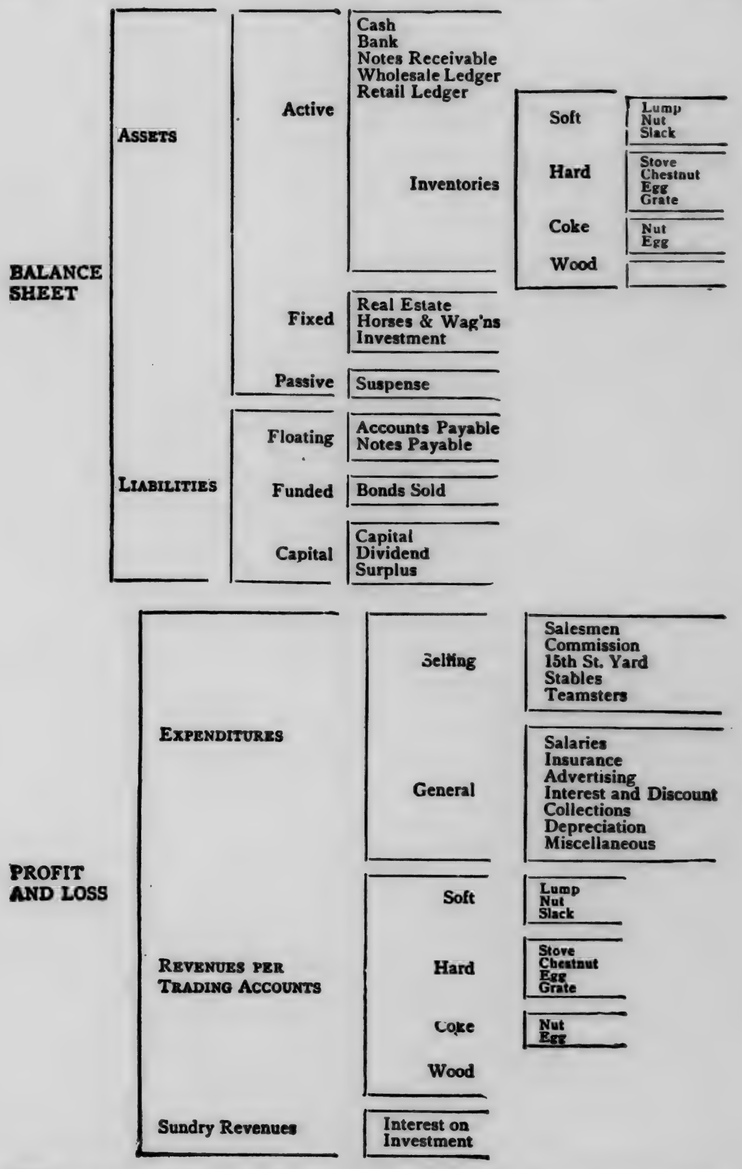

(390) NO. 2. GRAPHIC CHART OF PRODUCTION COST.




(391) NO. 3. CHART OF CLASSIFICATION FOR GENERAL STORE.








(392) NO. 4. CHART OF CLASSIFICATION FOR WHOLESALE AND RETAIL COAL BUSINESS.

## Chart of Classification of a Machine Manufacturing Co

- Assets
  - Active Assets
    - Cash
    - Accounts Receivable
    - Notes Receivable
    - Mdse. Inventory
    - Coal
  - Fixed Assets
    - Fixtures and Fittings
    - Furniture
    - Trackage
    - Real Estate
    - Patterns
    - Belting, Lacing, and Shafting
    - Machinery
    - Equipment
    - Plant Betterment
    - Investment
  - Passive Assets
    - Patent Rights
    - Royalties
    - Suspense
- Liabilities
  - Floating Liabilities
    - Accounts Payable
    - Notes Payable
- Manufacturing
  - Trading Accounts
    - Mdse. Purchases
    - Productive Labor
    - Non-Productive Labor
    - General Factory Expense
    - In-Freight
    - Sales
- Profit and Loss
  - Selling Expense
    - Advertising
    - Traveling
    - Demonstrating
    - Express
  - Administrative Expense
    - Postage
    - Printing
    - Stationery
    - Incidentals
    - Legal
  - General Expense
    - Accounting Department Salary
    - Insurance
    - Interest
    - Discount
    - Pay Roll
    - Taxes
    - Profit and Loss

(393) NO. 5. CHART OF CLASSIFICATION FOR MACHINERY MANUFACTURING BUSINESS.

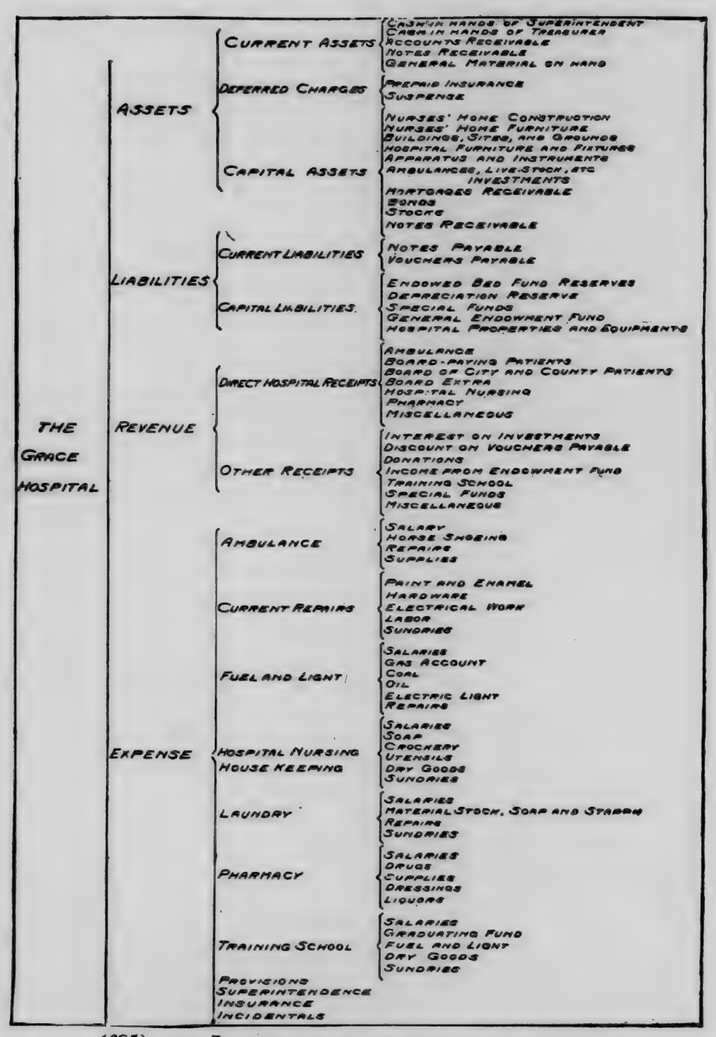




## Chart of Accounts—Balance Sheet
### Ashland Bottling Works

- Balance Sheet
  - Assets
    - Operating
      - Construction
      - Real Estate
      - Bottles and Cases
      - Office Equipment
      - Wagon, Sleigh, Harness and Horse Account
    - Current
      - Cash
      - Personal Accounts Rec.
      - City Ledger Accounts Rec.
      - A Ledger Accounts Rec.
      - B Ledger Accounts Rec.
      - C Ledger Accounts Rec.
  - Liabilities
    - Funded
      - First Mortgage
    - Floating
      - Accounts Payable
      - Personal Accounts Payable
    - Reserves
      - Depreciation and Up-keep
      - Renewal — Bottles and Cases
    - Capital
      - F. B. Investment Account
      - O. B. Investment Account
  - Revenues
    - Manufactured Goods
    - Merchandise Bought
    - Allowances to us
    - Sundry Receipts
- Profit and Loss
  - Current Expenses
    - Mfg Goods
      - Labor
        - Productive
        - Non-Productive
      - Supply
        - Supplies in Freight
        - Supply Expense
      - General
        - Light
        - Heat
        - Power
        - Taxes
        - Insurance
        - Miscellaneous, General
        - Up-keep and Depreciation
    - Mdse. Bought
      - Labor
      - Supplies
        - Supplies in Freight
        - Supply Expense
      - General
        - Expense
    - Comm. or Sell. and Running
      - Office
        - Salaries
        - Miscellaneous Office Expense
      - Salesmen
        - Salaries
        - Miscellaneous Expense
      - Advertising
      - Administrative
      - General Expense

(394) NO. 6. CHART OF CLASSIFICATION FOR BOTTLING WORKS.




(395) NO. 7. CHART OF CLASSIFICATION FOR HOSPITAL.





### (396) CHARTER.

A license to trade or do business under certain regulations and rules or constitution and by-laws approved by the State authorities

It is necessary to be very careful in drawing up articles of incorporation that sufficient scope is included to cover the probable developments of the business, for the reason that an incorporated company cannot legally embark in any business not specified in such articles of incorporation, and the transaction of unauthorized business by a corporation is sufficient ground for winding up petition.

### (397) CHARTER PARTY.

A form of agreement whereby the owners of a vessel lease the whole or part of same to another person for a certain specified period or for the transportation of certain specified commodities.

### (398) CHECK.

A promise to pay at sight on demand through a bank. A draft on a bank payable to bearer or to the order of payee.

A written order or request addressed to a bank or persons carrying on the business of banking, by parties having money in their hands, desiring them to pay, on presentment, to a person therein named or bearer, or to such person or order, a named sum of money.

Checks are in use only between banks and bankers and their customers, and are designed to facilitate banking operations. It is of their very essence to be payable on demand, because the contract between the banker and the customer is that the money is payable on demand.

### (399 CHECK FIGURES.

See check systems.

### (400) CHECK LEDGER.

A small ledger ruled with the ordinary debit and credit columns in which all accounts kept in the regular ledgers are carried in skeleton form, the balance of the check ledger accounts agreeing with the balances of accounts kept in the regular ledgers.

### (401) CHECK MARKS.

Symbols used on books of account to denote that the items to which they relate have been examined and found correct.

In auditing, each auditor is expected to possess an individual check mark which will distinguish his work from that of others assisting in the audit.

Check marks are also used to facilitate posting. Thus, when the cash book has to be posted, it is usual to first fill in the page number from the

index in the folio column, and to make a check mark in the check column to show that the amounts have been posted.

### (402) CHECK REGISTER OR BANK ACCOUNT.

A record of checks issued which usually includes a record of amounts deposited at bank and balance at credit.

When checks issued are posted from the check register to the debit of the persons to whom issued, the check register becomes a bank cash book.

When using a form of this kind, the checks are usually padded, as stubs are unnecessary.

A810

Check Register.

Left hand side — Record of checks drawn and deposits made with ____ Bank for ____ 1904

| Deposits | | Date | Pay To the order of | Checks | | Deductions | | Ledger Postings | |
|---|---|---|---|---|---|---|---|---|---|
| Day | Amt. | | | Number | Amount | Discount | Frt. Allow. | Accts. Payble | General |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

A810

Check Register.

Right hand side — Distribution of Accounts Payable

| Sundry Debits | | | Merchandise | | General Expense | | | | | | | | Selling Expense | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Account | ✓ | Amt. | Purchases | Frt. & Exp. | Advtsg. | Drayage | Of. Exp. | Postage | Salaries | Labor | Genl. Exp. | | Salaries | Road |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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We illustrate a form of combination check register and distribution journal, which is very convenient and labor-saving. The left hand side shows the balance at bank and postings to accounts payable and general ledgers; the right hand side contains the distribution of the checks to the various disbursement accounts, the totals of these columns being posted at the end of each month.





CHECK REGISTER

| Date M D Y | In favor of | Payment | Number | Amt. of Check | When Paid | DEPOSITS Date | DEPOSITS Amount | Balance |
|---|---|---|---|---|---|---|---|---|
| | | | 00 | | | | | |
| | | | 01 | | | | | |
| | | | 02 | | | | | |
| | | | 03 | | | | | |
| | | | 04 | | | | | |
| | | | 05 | | | | | |

CHECK REGISTER AND BANK ACCOUNT

CONTINENTAL MOTOR MFG. CO.

WITH ____ BANK FOR ____ 190 ____

| DATE | DEPOSITS | CHECKS DRAWN | BALANCE | OUTSTANDING CHECKS FOR BALANCE OF ____ 190 | | | | |
|---|---|---|---|---|---|---|---|---|
| AMT FORD | | | | ✓ | CHECK NO. | AMOUNT | CHECK NO. | AMOUNT |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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### (403) CHECK SYSTEMS.

A number of systems have recently been devised with the object of enabling the book-keeper to check his work of addition and posting page by page, so that on the last day of the month he may be absolutely sure of his balance. These may be distinguished principally as check figures and reverse posting.

The check figures used are "the proof by 9," "proof by 11," "proof by 13," "proof by 19." The proof by 11 is more generally used, as it can be easily learned and requires no tables of reference. The proof by 9 has been found not to be so efficient, as there are a number of transpositions it does not detect.

While the check figure 11 is not infallible, it is reliable in most cases. An operation of this system may be described as follows:

Take two amounts of five figures each. Starting at the right hand, add the first, third and fifth figures and deduct the second and fourth. If the latter exceeds the former, add 11 and then deduct. The result is the proof figure.

This illustration merely shows that the footing is correct, the footing of the check figures giving the same check figure as the footing of the amounts. But if these amounts are posted to the ledger the same operation will prove the accuracy of the posting.

## (404) CHECK FIGURE 17.

The check figure 17 is obtained by casting out the excess over multiples of this number, but as these multiples involve considerable calculation and are not easily retained in memory, it is usual to provide a chart of multiples as per our illustration.

Our illustration shows the extraction of the check figure from two tables, including the proofs.

| | | | |
|---|---|---|---|
| 17 | 697 | | |
| 34 | 714 | | |
| 51 | 731 | 19816 | 198—187=11 affix 16=1116—1105=11 |
| 68 | 748 | | |
| 85 | 765 | 28734 | 287—272=15 affix 34=1534—1530= 4 |
| 102 | 782 | | |
| 119 | 799 | 52068 | 520—510=10 affix 68=1068—1054=14 |
| 136 | 816 | | — |
| 153 | 833 | | 29—17=12 |
| 170 | 850 | ——— | |
| 187 | 867 | 100618 | |
| 204 | 884 | | |
| 221 | 901 | | 100—85=15 affix 6=156—153=3 affix 18=318—306=12 |
| 238 | 918 | | |
| 255 | 935 | | |
| 272 | 952 | | |
| 289 | 969 | | |
| 306 | 986 | | |
| 323 | 1003 | | |
| 340 | 1020 | | |
| 357 | 1037 | 98161 | 981—969=12 affix 61—1261—1258= 3 |
| 374 | 1054 | | |
| 391 | 1071 | 43872 | 437—425=12 affix 82—1282—1275= 7 |
| 408 | 1088 | | |
| 425 | 1105 | 68025 | 680—680= 0 affix 25— 25— 17= 8 |
| 442 | 1122 | | |
| 459 | 1139 | | — |
| 476 | 1156 | | 18—17=1 |
| 493 | 1173 | ——— | |
| 510 | 1190 | 209968 | |
| 527 | 1207 | | |
| 544 | 1224 | | 209—204=5 affix 9=59—51=8 affix 68=868—867=1 |
| 561 | 1241 | | |
| 578 | 1258 | | |
| 595 | 1275 | | |
| 612 | | | |
| 629 | | | |
| 646 | | | |
| 663 | | | |
| 680 | | | |





## (405) REVERSE POSTING CHECKING SYSTEM.

The plan is perfectly simple, and can be described in a few words. It requires first a slip of ruled paper about the size of the blotter which is used by the book-keeper while posting, the ruling so devised as to produce ten posting columns. A slip should be provided for each book of original entry; that is, one slip for sales, one for cash receipts, one for cash payments, one for journal credits, and one for journal debits. When an item is posted into the ledger the amount of the posting is immediately copied to the corresponding column of the check slip. At convenient intervals during the month the check slips are footed and totals compared with the footings of the corresponding books of original entry, thus proving that the postings have all been accurately made. At the end of the month the total footings of each check slip are first made to balance with the totals of the corresponding book of original entry; then the balances are drawn from the ledger accounts for each section, the amounts footed and compared with the balance produced by the use of the balance for preceding month, plus debits and minus credits as shown by the corresponding columns of the check slip.

It will be seen that an important point in this plan is that the amounts entered on the check slips must be copied from the ledger, and not posted from the book of original entry, the idea being that the amounts in each column of the check slip correspond exactly with the amounts in the corresponding section of the ledger.

Another important point to be remembered is that debits and credits should never be posted at the same time, and for this reason the original entries should be so grouped that the book-keeper will be able to make distinct jobs of the debit and credit posting.

At first thought this method appears to be quite intricate. It is, however, the simplest plan I have run across in an experience of about 25 years in handling accounts. Prior to the adoption of this system in our office our book-keepers were continually struggling with their trial balances. It was a frequent occurrence that some of the ledgers were not balanced for periods of four or five months, and much time was wasted in checking for errors. On the other hand, as before stated, under the system now in operation all the ledgers are balanced, as a rule, by the evening of the first day of the month.—(*P. W. Jackson, Jr.*)

## (406) CHECKING ADDITIONS.

(Auditing.)—The checking of additions of any book should be done at the time the other work connected with that book is receiving attention, if the books being audited are not exclusively at the disposition of the auditor during the progress of the audit. The amounts brought forward should also receive careful attention to see that they correspond with the totals of the preceding pages.

## (407) CHURCH RECORDS.

Form 1 is intended for use of the church clerk, in keeping a complete record of the membership, for the use of the pastor to keep in close touch with his congregation, and for the financial secretary as an alphabetical list of the members for locating personal accounts recorded on Form 2. The member's name and number are recorded across one side of the card, for convenience in locating the card when in position in the card file. The other information could be printed in the same position on the card by dividing the space on the card into two divisions or columns, but the method shown here gives a little more room for recording items.

This form is for the use of the financial secretary, and consists of an individual account of each member, showing amount pledged, in what manner to be paid, amount paid each Sunday in the month or year, total paid, balance due for year just closed, amount on the former card unpaid and total due on account. A small space is reserved for notations by the financial secretary. This form is intended for use with the envelope system,

NAME _____ NO. _____

Residence _____
Occupation _____
Born _____
At _____
Admitted to Membership _____
How? _____
Baptized _____
By whom? _____
Left church by (letter, dismissal) _____
Married _____
To _____
No. of children _____
Attends _____
Children attend _____
Died _____

S.S. S.S.

| NAME | | | | | | | NO. |
|---|---|---|---|---|---|---|---|
| Year _____ | 1st | 2nd | 3rd | 4th | 5th | Monthly Total | Pledge |
| January | | | | | | | To be paid _____ per _____ |
| February | | | | | | | Total pledged |
| March | | | | | | | Total paid |
| April | | | | | | | Amount due |
| May | | | | | | | Back pledges due |
| June | | | | | | | Total due |
| July | | | | | | | REMARKS |
| August | | | | | | | |
| September | | | | | | | |
| October | | | | | | | |
| November | | | | | | | |
| December | | | | | | | |
| Total paid during year | | | | | | | |





in which each member is furnished with an envelope for payments weekly, monthly or quarterly, with his number and the amount thereon. From these envelopes the secretary makes his records, each week, as they are deposited in the collection basket.

Form 3 is a record of receipts, to be used by both the financial secretary and the treasurer to show the gross receipts for each Sunday and month during the year. This system provides for three funds, known as general, missions and special. From the general fund are paid all the regular expenses of the church, which are prorated by comparing the total amount pledged with the amount to be expended and a definite percentage established so that the treasurer can at all times tell how much money is on hand for any particular expense.

By the footing of the three funds, as arranged for on the form and subtracting expenditures as shown on Form 4, the balance in each fund can be shown at the close of each month, or at any time. It will be noticed that no provision is made for showing the exact balance in each branch of the general fund, but a moment's addition and subtraction will show the information

| EXPENDITURES | MONTH OF | | | | | | 190 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | From GENERAL FUND | | | | | | | Missions | Special | Total |
| | Pastor | Janitor | Fuel | Light | Water | Repairs | Total | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
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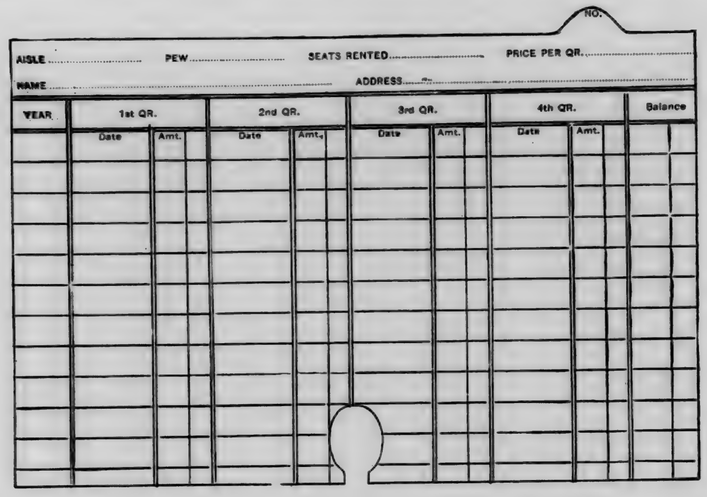
| | | | | | | | | | | |
| TOTAL EXPENDITURES | | | | | | | | | | |

| RECEIPTS | MONTH OF | | | | | | 190 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sunday | GENERAL FUND | | | | | | | Missions | Special | Total |
| | Apportionment of General Fund | | | | | | Total | | | |
| | Pastor's Salary | Janitor | Fuel | Light | Water | Repairs | | | | |
| 1st | | | | | | | | | | |
| 2nd | | | | | | | | | | |
| 3rd | | | | | | | | | | |
| 4th | | | | | | | | | | |
| 5th | | | | | | | | | | |
| PERCENTAGES OF GENERAL FUND | | | | | | | Total for Mo. | | | |
| Pastor's Salary ____ % | | | | | | | Last Balance | | | |
| Janitor ____ % | | | | | | | Grand Total | | | |
| Fuel ____ % | | | | | | | Expended | | | |
| Light ____ % | | | | | | | Balance | | | |
| Water ____ % | | | | | | | | | | |
| Repairs ____ % | | | | | | | | | | |




desired. A space is reserved to record the established percentages of general fund, so that the financial secretary and treasurer can apportion the funds as received. Form 4 is used by the treasurer to record his expenditures and is divided in the same manner as Form 3, so that amounts can be transferred and balances ascertained. The missions fund shown on Forms 3 and 4 is intended for recording amounts paid on special subscriptions for this purpose.

## (408) CLASSIFICATION OF ACCOUNTS.

The arrangement of different classes of accounts on financial statements and books of account.

The proper method of exhibiting on financial statements the results of business transacted is quite an important part of accounting, and much has been written on the subject by accountants of experience. It is universally admitted that the proper arrangement of accounts is that which will most clearly furnish the information required by the business man as to the condition and results of his business. The general principle is to group all accounts of one kind together; thus on a trial balance the accounts of some businesses may be classified as follows:

DEBITS.—Available assets capable of prompt realization, such as cash, accounts receivable, notes receivable.

Fixed assets of the nature of permanent investments, such as real estate, machinery, furniture and fixtures.

Manufacturing Expense Accounts.—Showing cost of production, such as labor, material, freight.





General Expense.—Showing cost of management and conduct of business, such as salaries, interest, rent.

CREDITS.—Liabilities payable, such as accounts and notes payable, pay roll.

Trading Credits.—Such as sales.

Capital Accounts.—Such as capital stock, surplus, undivided profits, undistributed dividends.

Accountants differ considerably in their views as to the classification of accounts on trial balances and balance sheets, but the above arrangement will always be intelligible and consistent. The question as to whether capital accounts should be at the top or at the bottom of the liability column can be left for others to elucidate.

The classification of accounts on the trading and profit and loss accounts offers a large scope for accountants of ability in the division between cost of production, maintenance of plant and machinery, and administrative expenses. In some large modern corporations all manufacturing and general expense is prorated over the various departments, involving a considerable amount of book-keeping, but in this way no detail of cost can be overlooked and the possibility of underestimates or erroneous prices is practically eliminated. Thus, one accountant recommends the following classification of cost of making machines: (1) Prime cost. (2) Repair and renewal costs on same. (3) Cost of added equipments. (4) Repair and renewal costs on same. (5) Carriage costs, applicable to prime costs. (6) Insurance costs relating to headings 1 and 3. (7) Sundry special costs, like storage, traveling, telephone, etc.

CLASSIFICATION OF ACCOUNTS ON LEDGERS.—The accounts of a business should wherever possible be classified in accordance with the arrangement of the balance sheet, but in any case customers' and creditors' accounts should be sectionalized, and all other accounts provided for in a separate general ledger, in which should be carried summary or adjustment accounts, showing the debits, credits and balances of all customers' accounts and creditors' accounts in total.

The work on ledgers can be greatly facilitated by proper classification. Where there are a large number of accounts they should be divided into convenient sections, each section to be proved independently. Thus Accounts Receivable can be divided and classified as "City" and "County"; or as "Country" A-K and "Country" L-Z. Or they can be classified according to salesmen, according to States, in each case providing that each separate section shall have its representative account in the nominal ledger through which the accuracy of the postings shall be checked.

## (409) STANDARD CLASSIFICATION FOR TELEPHONE COMPANIES.

The following is the classification of accounts recommended by the

National Committee appointed by the National Interstate Telephone Association to report on standard form of accounting:

CLASSIFICATION OF INCOMES (RECEIPTS).

1. Telephone rentals.
2. Long distance toll earnings.
3. Local toll earnings.
4. Pay station receipts.
5. Pole line earnings.
6. Conduit earnings.
7. Measured service excess calls.
8. Telegraph line earnings.
9. Private toll line earnings.
10. Sale of old material.
11. Miscellaneous income.
12. Interest on bank balance.
13. Messenger fees.
14. Dividends and interest on stocks owned.
15. Any other earnings not covered by above.

CLASSIFICATION OF CONSTRUCTION (INSTALLATION AND EQUIPMENT ACCOUNTS).

(A) Pole Lines—This account to include the cost of poles, cross arms, insulators, hardware and all sundry material, including also, the cost of setting and painting poles, freight, cartage, wages and cost of handling.

(B) Wires and Cables (Aerial)—This account to include the cost of all circuit wire, tie wire, drops, cable, cable hangers, sleeves, cable terminals, and all labor employed, including freight and cartage, up to and including the house-bracket.

(C) Interior Wiring and Equipment—To this account will be charged the cost of complete telephone instruments, house cable covered wire, office wire, inside fittings, junction boxes, lightning arresters and all labor employed in installing same.

(D) Subways—This account to include the cost of man-hole frames and covers, eye beams, conduits, cement, paving, lateral bonds, lumber and all freight, cartage, labor and sundry materials used in the construction of subways.

(E) Cable Underground—This account to include the cost of cable and labor putting same in conduit, freight, hauling, tools, splicing, testing and connecting, including terminals, etc.

(F) Exchange Equipment—This account to include the cost of new switchboards, cable, cross connecting boards, storage batteries, charging machines, ringing machines, freight, drayages, and the labor of installing same. This account to be used when plant is enlarged or improved and in no case should be confused with repairs to exchange equipment under maintenance.





(G) Booths and Pay Stations—This account to include the cost of private exchange switchboard and the cost of installing complete; and the complete cost of intercommunicating systems including labor, and all materials used, all interior wiring, and telephones installed in connection with private branch exchange switchboard to be charged to Subdivision C under construction.

(I) Soliciting—To this account should be charged the salaries and expenses of solicitors engaged entirely on new work or extension of plant. If part of their time is engaged in maintaining old business that part should be charged to soliciting, operating.

(J) Right of Way—This account to include the cost of all rights and permits, exclusive of franchises to construct, operate and maintain pole lines or other equipment along or over private or municipal property.

(K) Franchise—This account to include the cost of city or town franchises, granting the right to construct and operate telephone lines and systems and extensions of original property, including all expenses incidental thereto.

(L) Toll Lines—This account to include the cost of all circuit and pole lines, including labor, freight, hauling and sundry materials, erected strictly for toll purposes.

(M) Real Estate and Buildings—This account to include the cost of all real estate and buildings acquired in any manner.

(N) Tool Accounts—To include the first cost of all new tools purchased.

(O) Construction Salaries—Charge to this account all salaries applicable to construction work which cannot be distributed in the foregoing subdivision. This refers particularly to a proportion of salaries of the general officers of the company.

(P) Interest and Discount During Construction—This account to include the interest paid on all loans effected for construction purposes, also the discounts on stocks, bonds or other securities used by the company and sold at a discount, for construction purposes. Any interest earned by the temporary lending of construction funds to be credited to this account.

(Q) Legal Expenses—Includes all law expenses in connection with organization, franchises, etc. These expenses must not be distributed through the various other accounts—such law expenses as may be incurred in connection with the purchase of rights of way and real estate may be charged to the account "right of way" or "real estate and buildings" provided the expense is incurred only in connection with the purchase of some particular right of way, or piece of real estate.

(R) Construction Expense—Charge to this account all miscellaneous items of expense not directly covered by any other subdivision.

Note—Further subdivisions of cost of construction may be made if deemed necessary.

GENERAL ACCOUNTS—DEBITS.

1. Plant.
2. Accounts receivable, rentals, etc.
3. Unexpired insurance.
4. Unexpired directory.
5. Interest on bonds.
6. Treasury stock.
7. Treasury bonds.
8. General office expense.
9. Freight and cartage.
10. Bank accounts.
11. Stable expenses.
12. Warehouse supplies.
13. Furniture and fixtures.
14. Petty cash.
15. Rebates, cancellations, etc.
16. Officers' and clerks' salaries.
17. Collection expense.
18. Soliciting expense.
19. Taxes.
20. Insurance.
21. Light.
22. Heat.
23. Power.
24. Water.
25. Damage and accident.
26. Stationery and printing.
27. Postage.
28. Advertising.
29. Directory.
30. Traveling expense.
31. Pole and right of way rental.
32. Interest and discount.
33. Rental of real estate and buildings.
34. Pay station commissions.
35. Telegraph line earning commissions.
36. Long distance toll earning commissions.
37. Private toll line earning commissions.

GENERAL ACCOUNTS—CREDIT.

38. Capital stock.
39. Bonded indebtedness.
40. Unearned rentals.
41. Surplus.
42. Bills payable.





43. Accounts payable, vouchers, etc.
44. Accrued interest on bonds.
45. Accrued taxes, state, city and county.
46. Accrued tax on gross receipts.
47. Unclaimed wages.

OPERATING ACCOUNTS.

1. Salaries and Wages, Local Exchanges—Operators, supervisors, monitors, attendants, etc.

2. Salaries and Wages, Long Distance—Toll operators, supervisors, monitors, attendants, etc.

3. Printing and Stationery—This account to include cost of all printing and stationery used in the operating departments for compiling records, monthly and daily reports.

4. Postage—Cost of all postage used.

5. Light—Exchange Light—This account to include a fair prorate of total light bills which is considered applicable to operating according to existing conditions. Balance of light bills to be charged to the general expense account of light.

6. Exchange Heat—Charge a fair prorate of total heat bills which is considered applicable to operating according to existing conditions. Balance to be charged to the expense account, "heat."

7. Exchange Water—Charge a fair prorate of total water bills to this account as in the case of light and heat.

8. Exchange Power—Charge entire power bill to this account.

9. Exchange Rent—Charge a proportionate amount of rent applicable to operating department.

10. Exchange Miscellaneous Expenses—This account to include the cost of expense of dining room supplies, hospital, hospital supplies, medical services, traveling expenses, car fares, and other items incident to the operating department. In the event of meals being sold to operators or other employes, the proceeds to be credited to this account.

MAINTENANCE ACCOUNTS.

(A) Repairs to pole lines.
(B) Repairs to wires and cables aerial,
(C) Interior wiring and equipment.
(D) Repairs to subway.
(E) Repairs to cable, underground.
(F) Repairs to exchange equipment.
(G) Repairs to booths and pay stations.
(H) Repairs to private branch exchange.
(I) Repairs to toll line.
(J) Repairs to real estate and buildings.

All of the above accounts to include the cost of repairs to and replacements of materials, as listed under Construction, including freights and cartage and all costs of labor employed.

(K) Soliciting—To this account should be charged the salaries and expense of solicitors engaged in maintaining old business.

(L) Repair to Tools—To this account should be charged the cost of all repairs to tools, or cost of tools purchased to take the place of tools destroyed or lost.

(M) Miscellaneous Expense—To provide for all repairs not otherwise specified.

## (410) STANDARD CLASSIFICATION FOR STREET RAILROAD COMPANIES.

(ARRANGED BY THE PUBLIC SERVICE COMMISSION OF NEW YORK CITY).

SCHEDULE A: BALANCE SHEET OR INDICANT ACCOUNTS.

FIXED CAPITAL.

S100. Fixed Capital, December 31, 1908.

*Land.*

S111. Right of Way.
S112. Other Street Railroad Land.

*Intangible Street Railroad Capital.*

101. Organization.
S102. Franchises (Street Railroad).
S103. Patent-rights (Street Railroad).
S104. Other Intangible Street Railroad Capital.

*Roadway.*

181. Grading.
182. Ballast.
183. Ties
184a. Rails, Rail Fastenings, and Joints.
184b. Special Work.
185. Underground Construction.
186. Track Laying and Surfacing.
187. Paving.
188. Roadway Tools.
189. Tunnels.
190. Elevated Structures and Foundations.
191. Bridge, Trestles, and Culverts.
192. Crossings, Fences, and Signs.
193. Interlocking and Other Signal Apparatus.
194. Telephone and Telegraph Lines.

*Electric Line.*

S161. Poles and Fixtures.
S162. Underground Conduits.
S163. Transmission System.
S164. Distribution System.





*Buildings and Structures.*

S131. Dams, Canals, and Pipe Lines.
S132. Power Plant Buildings.
S151. Sub-station Buildings.
S120. General Office Buildings and Equipment.
195. Shops and Car Houses.
196. Stations, Waiting Rooms, and Miscellaneous Buildings.
197. Docks and Wharves.
198. Park and Resort Properties.

*Power Plant Equipment.*

S141a. Furnaces, Boilers, and Accessories.
S141b. Steam Engines.
S142. Turbines and Water-wheels.
S143. Gas Power Equipment.
S144. Power Plant Electric Equipment.
S145. Miscellaneous Power Plant Equipment.
S152. Sub-station Equipment.
153. Cable Power Equipment.

*Rolling Stock and Miscellaneous Equipment.*

S122b. Shop Equipment.
201. Locomotives.
202. Revenue Cars.
203. Electric Equipment of Cars.
204. Other Rail Equipment.
205. Miscellaneous Equipment.

*Undistributed Construction Expenditures.*

S281. Engineering and Superintendence.
S282. Law Expenditures During Construction.
S283. Injuries During Construction.
S284. Taxes During Construction.
S285. Miscellaneous Construction Expenditures.
S286. Interest During Construction.

*Fixed Capital in Other Departments.*

Electric Capital, Gas Capital, and Railroad Capital.
O110. Land in Other Departments.
O102. Franchises in Other Departments.
O103. Patent-rights in Other Departments.
O104. Other Intangible Capital in Other Departments.
O120. Tangible Capital in Other Departments.

FLOATING CAPITAL.

*Materials and Supplies.*

S10. Materials and Supplies.

*Current Assets.*

1. Cash.
2. Bills Receivable.

3. Accounts Receivable.
4. Interest and Dividends Receivable.
5. Other Current Assets.

INVESTMENTS.

300. Investments.

SPECIAL DEPOSITS.

311. Coupon Special Deposits.
312. Dividend Special Deposits.
313. Other Special Deposits.

PREPAYMENTS.

321. Prepaid Taxes.
322. Prepaid Insurance.
323. Prepaid Rents.
324. Other Prepayments.

SUSPENSE ACCOUNTS.

331. Unamortized Debt Discount and Expense.
332. Other Suspense.

RE-ACQUIRED SECURITIES.

340. Re-acquired Securities.

DEBT.

360. Funded.
Unfunded.
351. Taxes Accrued.
352. Receiver's Certificates.
353. Judgments Unpaid.
354. Interest Accrued.
355. Dividends Declared.
356. Bills Payable.
357. Accounts Payable.
358. Other Unfunded Debt.

RESERVES.

Permanent.
371. Premiums on Stocks.
372. Other Permanent Reserves.
Temporary.
373. Contractual.
Required.
374. Accrued Amortization of Capital.
375. Unamortized Premium on Debt.
376. Other Required Reserves.
Optional.
381. Casualties and Insurance Reserve.
382. Other Optional Reserves.





STOCKS.

390. Stocks.

## SCHEDULE B: INCOME ACCOUNT.

STREET RAILROAD OPERATING REVENUES.

*I. Revenue From Transportation.*

451. Passenger Revenue.
452. Baggage Revnue.
453a. Chartered Car Revenue.
453b. Parlor and Chair Car Revenue.
454. Mail Revenue.
455. Express Revenue.
456. Milk Revenue.
457. Freight Revenue.
458. Switching Revenue.
459. Miscellaneous Transportation Revenue.

*II. Other Street Railroad Revenues.*

461. Advertising and Other Privileges.
462a. Parcel Room Receipts.
462b. Storage.
463. Car Service.
464. Telephone and Telegraph Service.
465a. Rent of Tracks and Terminals.
465b. Rent of Equipment.
465c. Rent of Buildings and Other Property.
466a. Sale of Power.
466b. Joint Electric Power Revenue.
467. Park and Resort Revenue.
468. Miscellaneous.
Revenue from Outside Operations.

STREET RAILROAD OPERATING EXPENSES.

*I. Maintenance of Way and Structures.*

701. Superintendence of Way and Structures.
704. Ballast.
705. Ties.
706. Rails.
707. Rail Fastenings and Joints.
708. Special Work.
709. Underground Construction.
710. Roadway and Track Labor.
711. Paving.
712. Miscellaneous Roadway and Track Expenses.
713. Cleaning and Sanding Track.
714. Removal of Snow, Ice, and Sand.
716. Repairs of Tunnels.
717. Repairs of Elevated Structures and Foundations.
718. Repairs of Bridges, Trestles, and Culverts.
719. Repairs of Crossings, Fences, and Signs.
720. Repairs of Signal and Interlocking Systems.

721. Telephone and Telegraph Repairs.
722. Other Miscellaneous Way Expenses.
S522. Pole and Fixture Repairs.
S523. Underground Conduit Repairs.
S524. Transmission System Repairs.
S527. Distribution System Repairs.
724. Miscellaneous Electric Line Expenses.
725. Repairs of Buildings and Structures.
726. Other Operations—Dr.
727. Joint Way and Structures—Dr.
728. Other Operations—Cr.
729. Joint Way and Structures—Cr.
730. Depreciation of Way and Structures.

*II. Maintenance of Equipment.*

741. Superintendence of Equipment.
S508. Repairs of Furnaces, Boilers, and Accessories.
S509. Repairs of Steam Engines.
S510. Repairs of Hydraulic Power Plant.
S511. Repairs of Gas Power Equipment.
S512. Repairs of Power Plant Electric Equipment.
S513. Repairs of Miscellaneous Power Plant Equipment.
742g. Repairs of Cable Power Equipment.
S528. Repairs of Sub-station Equipment.
744. Repairs of Passenger and Combination Cars.
745. Repairs of Freight, Express, and Mail Cars.
746. Repairs of Locomotives.
747. Repairs of Service Cars.
749. Repairs of Electric Equipment of Cars.
750. Repairs of Electric Equipment of Locomotives.
752. Repairs of Shop Machinery and Tools.
753. Shop Expenses.
754. Repairs of Vehicles.
755. Other Miscellaneous Equipment Expenses.
756. Other Operations—Dr.
757. Maintaining Joint Equipment—Dr.
758. Other Operations—Cr.
759. Maintaining Joint Equipment—Cr.
760. Depreciation of Equipment.

*III. Traffic.*

771. Superintendence and Solicitation.
772. Advertising.
773. Parks and Other Attractions.
774. Miscellaneous Traffic Expenses.

*IV. Conducting Transportation.*

781. Superintendence and Solicitation.

GROUP I. POWER.

S501. Power Plant Labor.
a. Power Plant Superintendence and Care.
b. Boiler Room Labor.





c. Producer Labor.
d. Engine Labor.
e. Electric Labor.
f. Cable Power Plant Labor.

S525. Sub-station Labor.
S502. Fuel for Power.
S503. Water for Power.
S504. Lubricants for Power.
S505. Miscellaneous Power Plant Supplies and Expenses.
S526. Sub-station Supplies and Expenses.
785. Horse Power—Revenue Car Service.
786. Power Purchased.
787. Jointly Produced Power—Dr.
788. Power Exchanged—Balance.
789. Other Operations—Dr.
790. Other Operations—Cr.
791. Jointly Produced Power—Cr.

GROUP II. OPERATION OF CARS.

802a. Passenger Motormen.
802b. Passenger Conductors.
802c. Horse Car Drivers.
802d. Other Passenger Trainmen.
803. Freight and Express Motormen and Trainmen.
805. Miscellaneous Car Service Employes.
806. Miscellaneous Car Service Expenses.
807. Station Employes.
808. Station Expenses.
809. Car House Employes.
810. Car House Expenses.
811. Operation of Signal and Interlocking Systems.
812. Operation of Telephone and Telegraph Systems.
813. Express and Freight Collections and Delivery.
814. Loss and Damage.
815. Other Transportation Expenses.
816. Joint Operation of Cars—Dr.
817. Joint Operation of Cars—Cr.

*V. General and Miscellaneous.*

S831. Salaries and Expenses of General Officers.
S832. Salaries and Expenses of General Office Clerks.
S833. General Office Supplies and Expenses.
S834. General Law Expenses.
S835. Insurance.
S836a. Relief Department Expenses.
S836b. Pensions.
S838. Miscellaneous General Expenses.
S839. General Amortization.
S840. Other Operations—Dr.
S841. Joint General Expense—Dr.
S842. Other Operations—Cr.
S843. Joint General Expense—Cr.
S844a. Accidents and Damages.

S844b. Law Expenses Connected with Damages.
S845. General Stationery and Printing.
S847. Store Expenses.
S848. Stable Expenses.
S849. Undistributed Adjustments—Balance.

TAXES.

S860. Taxes.

NON-OPERATING REVENUES.

S901c. Rents Accrued from Lease of Road.
S901d. Miscellaneous Rent Revenues.
902. Interest Revenues.
903. Dividend Revenues.
904. Profits from Operations of Others
905. Miscellaneous Non-operating Revenues.

NON-OPERATING REVENUE DEDUCTIONS.

910. Non-operating Revenue Deductions:
  a. Rent Expense.
  b. Interest Expense.
  c. Dividend Expense.
  d. Others' Operations Expense.
  e. Miscellaneous Non-operating Expense.
  f. Non-operating Taxes.
  g. Uncollectible Non-operating Revenues.

INCOME DEDUCTIONS.

921. Interest Deductions.
922c. Rent for Lease of Other Road and Equipment.
922. Other Rent Deductions.
  d. Track and Terminal Privileges.
  e. Hire of Equipment.
  f. Joint Facility Rents.
  g. Miscellaneous Rent Deductions.
923. Sinking Fund Accruals.
924. Guaranties of Periodic Payments.
925. Loss on Operations of Others.
926. Other Contractual Deductions from Income.
927. Amortization of Landed Capital.
928. Amortization of Debt Discount and Expense.
929. Amortization of Premium on Debt—Cr.

APPROPRIATION ACCOUNTS.

931a. Bad Debts Collected.
931b. Other Additions to Surplus.
932. Expenses Elsewhere Unprovided For.
933. Dividends on Outstanding Stocks.
934. Amortization Elsewhere Unprovided For.
935. Appropriations to Reserves.
936. Gifts to Controlled Corporations.
937. Other Appropriations.





938. Bad Debts Written Off.
939. Other Deductions from Surplus.

SCHEDULE C: CLASSIFICATION OF CAR-MILES, CAR SEAT-MILES, AND CAR-HOURS.

CAR-MILES AND CAR SEAT-MILES.

Y1. Passenger Car-miles—Active.
Y2. Passenger Car-miles—Idle.
Y3. Special Passenger Car-miles.
Y4. Mail Car-miles.
Y5. Express Car-miles.
Y6. Freight Car-miles.
Y7. Mixed Car-miles.
Y8. Non-revenue Car-miles.
Y9. Electric Locomotive-miles.

CAR-HOURS.

Car-hours.

## (411) CLASSIFICATION OF DEPARTMENTAL STORE ACCOUNTS.

TRADING ACCOUNTS.

| Debits. | | Credits. |
|---|---|---|
| | *Department A.* | |
| Inventory. | | |
| Purchases. | | Sales. |
| Expense. | | Inventory. |
| Gross Profit. | | |
| | *Department B.* | |
| Inventory. | | Sales. |
| Purchases. | | Inventory. |
| Expense. | | |
| Gross Profit. | | |
| | *Department C.* | |
| Inventory. | | Sales. |
| Purchases. | | Inventory. |
| Expense. | | |
| Gross Profit. | | |
| | *Department D., etc.* | |
| Inventory. | | Sales |
| Purchases. | | Inventory. |
| Expenses. | | |
| Gross Profit. | | |

PROFIT AND LOSS ACCOUNT.

| Debits. | Credits. |
|---|---|
| Advertising. | Gross Profit—Department A. |
| General Expense. | Gross Profit—Department B. |
| Insurance. | Gross Profit—Department C. |
| Bad Debts. | Gross Profit—Department D, etc. |
| Depreciation. | Interest on Investments. |
| Net Profit. | |

BALANCE SHEET.

| Assets. | Liabilities. |
|---|---|
| Cash. | Accounts Payable. |
| Bank. | Bills Payable. |
| Accounts Receivable. | Bad Debts Reserve. |
| Petty Accounts Receivable. | Depreciation Reserve. |
| Bills Receivable. | Partners' Investment Accounts |
| Interest Receivable. | |
| Real Estate. | |
| Furniture and Fixtures. | |

## (412) CLASSIFICATION OF BRICK MANUFACTURING ACCOUNTS.

TRADING ACCOUNT—CEMENT.

| Debits. | Credits. |
|---|---|
| Cement Purchases. | Cement Sales. |
| Proportion of Labor. | |
| Proportion of Expense. | |
| Gross Profit. | |

TRADING ACCOUNT—SAND.

| Debits. | Credits. |
|---|---|
| Sand Purchases. | Sand Sales. |
| Proportion of Labor. | |
| Proportion of Expense. | |

MANUFACTURING ACCOUNT.

| Debits. | Credits. |
|---|---|
| Cement Purchases. | Balance carried to General Trading Acct. |
| Sand Purchases. | |
| Labor mixing for bricks. | |
| Labor mixing for blocks. | |
| Labor making bricks. | |
| Labor making blocks. | |
| Labor non-productive. | |
| Manfg. Expense. | |

GENERAL TRADING ACCOUNT.

| Debits. | Credits. |
|---|---|
| Inventory. | Brick Sales. |
| Balance from Mfg. Acct. | Block Sales. |
| Bricks— | Inventory. |
| Quantity Mfd. | |
| Cost. | |
| Blocks— | |
| Quantity Mfd. | |
| Cost. | |
| Gross Profit. | |

PROFIT AND LOSS ACCOUNT.

| Debits. | Credits. |
|---|---|
| Selling Expense— | Gross Profit from Trading Acct. |
| Advertising. | |
| Re-loading. | |
| Carting. | |
| Stable Expense. | |
| General Expense— | |
| Salaries. | |
| Stationery and Printing. | |
| Discount. | |
| Interest. | |





Repairs.
Depreciation.
Bad Debts.
Office Expense.
Net Profit.

BALANCE SHEET.

| Assets. | Liabilities. |
|---|---|
| Cash. | Accounts Payable. |
| Petty Cash Fund. | Notes Payable. |
| Accounts Receivable. | Bad Debts Reserve. |
| Notes Receivable. | Depreciation Reserve. |
| Office Fixtures. | Capital. |
| Plant and Machinery. | Surplus. |
| Tools. | |
| Real Estate. | |
| Unexpired Insurance. | |

## (413) CLOSING ENTRIES.

The charging of expenses and losses and crediting of profits to the profit and loss account preparatory to the distribution of net profits or surplus. It is usual to close out these accounts at the end of each fiscal year.

The method usually adopted in treating inventory is to make an arbitrary credit of the amount in the merchandise account, bringing same down as the new balance and transferring the difference between the debit and credit side of merchandise account with inventory added to the profit and loss account. The modern method is to close out merchandise account in the ordinary way and then make a journal entry, charging new merchandise account with the amount of the inventory, and crediting same to profit and loss.

It is well to note that accrued wages should be charged to Trading Account—that is, against gross profits, and accrued interest, unearned insurance, etc., should be credited direct to profit and loss. The question as to whether these classes of items should be incorporated in the balance sheet without opening temporary accounts to represent them in the ledger is a matter of opinion. In making an audit of books the auditor frequently finds such items entirely disregarded and a disinclination to put them through the books. In such cases the auditor will incorporate them in his balance sheet with proper explanations.

All inventories of stationery, stamps, coal and other supplies should be deducted from expense accounts prior to their being closed into profit and loss.

Expense and similar accounts should not be closed at the end of each month and balances brought down, as it is important for the preparation of financial statements at the end of the year that the totals of all such accounts be readily accessible.

ILLUSTRATION.

Take an inventory of the merchandise on hand, classifying same under the department headings if any. Include any merchandise in transit on which money has been advanced, to the extent of the part payment.

Calculate unexpired insurance, accrued interest and accrued wages, as well as any other contingent assets and liabilities not already spread on the books of account.

Credit total inventory to merchandise account, carrying the balance to profit and loss. Close merchandise account and bring down the amount of the inventory.

Credit unexpired insurance to insurance account, closing the balance to profit and loss. Close insurance account and bring down the balance.

Charge accrued wages and accrued interest on bills payable to salary account and interest account respectively; close the balance of these accounts into profit and loss and bring down the balances on the credit side.

Close income and expenditure accounts into profit and loss and rule up these accounts.

Close profit and loss, carrying the balance to surplus.

Balance and rule the asset and liability accounts, bringing down the balances.

Take a trial balance to insure the accuracy of the work.

Close the assets and liabilities into the proprietor's capital account, and rule up his account.

### (414) CLUB OR SOCIETY ACCOUNTING METHOD.

We illustrate a very simple form of ledger for a club, society or union, which will cover a record of payment of initiation fees and dues by six hundred members for ten years. Each member is given only one line in the book, his name and address being entered but once.

It will be noted that this is a regular tabular short leaf ledger. The method of keeping ledgers of this nature is fully described under the heading "Tabular Ledgers."

The book is made up of 10 full leaves and 90 half leaves, making 200 pages in all, with thirty lines to the page. It is to be used thus: On page 1, for instance, enter the member's name and address and his enrollment number. The 30 lines are printed in alternate blue and purple, so that the eye may more easily follow the record across the page. Next comes the date of his entrance or initiation and the amount and date of the payment of the fee. Fill in the year on the top line over the month columns and then, as each month passes, fill in the date and amount of each payment of monthly dues. If he pays several months in advance or if he runs several months in arrears and then settles for three months, fill in each month separately thus: 7/4 .50; 7/4 .50; 7/4 .50, setting each 50c under the month for which it was





paid. The idea in posting the payment this way is to show by a glance just how far he is paid up. No charges are entered, a blank column showing that the month has not been paid for.

The columns can be headed to suit the needs of the organization. If there be no entrance fee, then omit that column. If the dues are paid quarterly, then head your columns January, April, July and October or whatever months the dues are assessed. If it is an assessment organization, don't print in the titles of any months, but enter them in ink as required. You may have to make entries as to deaths and expulsions. If so you will find ample room in the space for "Remarks" on the second page of the full leaf, corresponding with the columns for the member's name and address on the first page.

Don't forget to have the printer leave a space in the top horizontal line for the year. Each year should be printed "190—" or, if you prefer, the year can be printed in full: 1907 on the first page. 1908 on the second and so on. This will make a more expensive job because there would have to be just so many separate forms.

The finance or auditing committee can check up the accounts any time in an evening, yes, in an hour, by merely footing up the columns and "check marking" the items they have included in their footing.

It must be borne in mind that the operation of this ledger does not relieve the treasurer or other financial officer from keeping a cash book. He must keep his cash account independently of the ledger, because he has to show his disbursements and his deposits in bank. And he should have a voucher for every expenditure. This voucher may either be the original bill, monthly statements not being recognized by the auditors, or the check itself may be printed so that it will include, on the reverse side, a copy of the original bill. If the bill itself is used the canceled check, when returned by the bank, should be attached to the bill, thus making a complete record of the transaction.

A further check on the proper keeping of the accounts is to have the cash book balance with the deposit book. This, of course, necessitates the payment of all bills by check through the bank no matter how small they be. Petty expenditures may be lumped at the end of the month or from meeting to meeting and a check made out for the amount payable to the disbursing officer, his bill being presented to the organization like any other bill.

Treasurers and collectors of clubs and kindred societies are often puzzled as to a convenient form of receipt. Many use a small book, but this is expensive as are blanks to be used for each payment. I have found the form shown to be the most economical and least troublesome.

This form should be printed on good paper as it has to last a year. A small leather case may be furnished with it, the case folding in the middle with triangular holders in the corners, so that the slip will not fall out. These

THE DETROIT PROTECTIVE ASSN.

DUES LEDGER

| Roll No. | Member | Address | Date of Initiation | Initiation Fee | 19___ Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Pd. | Pd. | Pd. | Pd. | Pd. | Pd. | Pd. | Pd. | Pd. | Pd. | Pd. | Pd. |
| | | | | | | | | | | | | | | | | |
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THE DETROIT PPOTECTIVE ASSOCIATION

Member.....Roll No.....

Residence.....

Bus. Address.....

Telephone.....

Monthly dues are payable on the FIRST day of each month.

| Year 190 | Amount | Date of Payment | Received By |
|---|---|---|---|
| January | | | |
| February | | | |
| March | | | |
| April | | | |
| May | | | |
| June | | | |
| July | | | |
| August | | | |
| September | | | |
| October | | | |
| November | | | |
| December | | | |
| | | | |

cases can be made up by any local bookbinder at 10 to 12 cents each or they can be purchased for seven to eight cents each in lots of 50, with the name of the organization stamped on the outside. The members should pay 10 cents each for this case.—(*G. Brown.*)

### (415) COAL MINING (BITUMINOUS) ACCOUNTING METHODS.

The three most important mines in the bituminous districts are the slope, shaft and drift.

The slope is an incline opening in the strata through which the coal is delivered to the surface. The coal is found near the surface, but pitches downward to the coal basin to such a marked degree that machinery is necessary in bringing the coal to the surface. The coal is generally delivered to the main track by mule or motor and the cars fastened to the wire rope attached to the surface machinery, to which point it is drawn.





The shaft is a vertical opening through the strata through which the coal is brought to the surface. The coal lies so far beneath the surface that the most feasible delivery is by elevator or cage. In some instances the excavation goes down many hundred of feet and penetrates more than one vein of coai.

March 31 1905

**ENGINEERS REPORT**

**Coal drawn from** Slope **Mine**

| | | Trip No. | No. Cars | Trip No. | No Cars | Trip No. | No. Cars |
|---|---|---|---|---|---|---|---|
| | 123 | 1 | 6 | 19 | 6 | 37 | 7 |
| | 121 | 2 | 7 | 20 | 6 | 38 | 6 |
| | 76 | 3 | 4 | 21 | 7 | 39 | 6 |
| | | 4 | 5 | 22 | 6 | 40 | 7 |
| | | 5 | 6 | 23 | 7 | 41 | 7 |
| Total | 320 | 6 | 6 | 24 | 5 | 42 | 7 |
| Remarks | | 7 | 6 | 25 | 4 | 43 | 6 |
| In need of | | 8 | 7 | 26 | 9 | 44 | 8 |
| Cylinder oil. | | 9 | 8 | 27 | 9 | 45 | 9 |
| | | 10 | 8 | 28 | 8 | 46 | 7 |
| | | 11 | 7 | 29 | 9 | 47 | 6 |
| | | 12 | 5 | 30 | 7 | 48 | |
| | | 13 | 5 | 31 | 6 | 49 | |
| | | 14 | 9 | 32 | 4 | 50 | |
| | | 15 | 8 | 33 | 5 | 51 | |
| | | 16 | 9 | 34 | 9 | 52 | |
| | | 17 | 9 | 35 | 8 | 53 | |
| | | 18 | 8 | 36 | 6 | 54 | |
| | | | 123 | | 121 | | 76 |
| | | | | | | | 115 |

The drift is the simplest form of the three and produces the coal at a lower cost than the others. The opening is driven parallel with the coal strata and with the water level, so that no machinery is required to pump the water to the surface.

Slope **Mine** March 31 1905

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1·10 | 1·08 | 2 00 | 1·15 | 1·16 | 1 18 | 2 00 | 2 00 | 1·19 | 2 00 | 1·04 | 1·11 | 1·08 | 1 10 | 2 00 | 1·18 | 1 17 | 2·00 | 2 00 | 1 00 | 2 00 | 2 00 | |
| 1·15 | 2 00 | 2 00 | 1·14 | 1·16 | 1·17 | 2 00 | 1·19 | 1·19 | 1·18 | 1·03 | 1·12 | 1·07 | 1 10 | 2 00 | 2 00 | 1·18 | 1·19 | 2 00 | 2·00 | 2 00 | 1·19 | |
| 1·15 | 2 00 | 2 00 | 1·15 | 1 16 | 2 00 | 2 00 | 2 00 | 2 00 | 2 00 | 1·05 | 1·11 | 1·09 | 1·10 | 2 00 | 1 18 | 1·19 | 2 00 | 2 00 | 2 00 | 2 00 | 2 00 | |
| 1·15 | 2 00 | 2 00 | 1·15 | 1·15 | 1·19 | 2 00 | 2 00 | 2 00 | 2 00 | 1·06 | 1·12 | 1·08 | 1·10 | 2 00 | 2 00 | 2 00 | 1 19 | 2 00 | 2 00 | 2 00 | 2 00 | |
| | | | | | | | | | | | | | | | | | | | 2 00 | | | |
| 6·15 | 7·08 | 8 00 | 6·19 | 7·03 | 7·14 | 8 00 | 7 19 | 7·18 | 7 18 | 4 18 | 6·06 | 5·12 | 6·00 | 8 00 | 7·16 | 7 14 | 7·18 | 8 00 | 10·00 | 8·00 | 7 19 | |

| 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1·09 | 1·04 | 2 00 | 1·19 | 2 00 | 1·19 | 1·18 | 2·00 | 1·18 | 2 00 | 1·04 | 2 00 | 1·18 | 2·00 | 2·00 | 2·00 | 1·18 | 1 16 | 1·16 | 1 19 | 1·08 | 2 00 | |
| 1·10 | 1·15 | 2 00 | 2 00 | 2 00 | 2 00 | 1 19 | 1·16 | 1·17 | 2 00 | 1 05 | 1·19 | 1·17 | 1·19 | 2·00 | 2·00 | 1·18 | 1·15 | 1·16 | 2 00 | 1·06 | 2 00 | |
| 1·10 | 1·16 | 2 00 | 1·19 | 2 00 | 1·19 | 2 00 | 1·18 | 2 00 | 2 00 | 1·05 | 2 00 | 1·16 | 2 00 | 2 00 | 2 00 | 1·18 | 1·16 | 1·16 | 2 00 | 1 09 | 2 00 | |
| 1·10 | 1·15 | 2 00 | 1·19 | 2 00 | 1·19 | 2 00 | 1 18 | 2·00 | 2 00 | 1·04 | 2·00 | 1·18 | 2 00 | 2 00 | 2 00 | 1·17 | 1 15 | 1·17 | 2 00 | 1 08 | 2 00 | |
| 5·19 | 6·10 | 8·00 | 7·17 | 8·00 | 7·17 | 7·17 | 7·14 | 7·15 | 8·00 | 4·18 | 7·19 | 7·09 | 7·19 | 8·00 | 8·00 | 7·11 | 7·02 | 7·05 | 7 19 | 5 13 | 8·00 | |

| 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1·14 | 2·00 | 1·15 | 2·00 | 1·18 | 2·00 | 2·00 | 1·18 | 1·19 | 1·14 | 2 00 | 2·00 | 1·15 | 1·19 | 1·16 | 1·18 | ·15 | 1·15 | 1 16 | 2 00 | 1 18 | 1·09 | |
| 1·15 | 2 00 | 1·15 | 2·00 | 1·18 | 2·00 | 2·00 | 1·18 | 1·18 | 1·14 | 2·00 | 1·19 | 1·15 | 2·00 | 1·02 | 1·18 | 1·10 | 1·15 | 2 00 | 2 00 | 1·17 | 1·10 | |
| 1·16 | 2·00 | 1·15 | 2·00 | 1·19 | 2·00 | 2·00 | 1·18 | 2·00 | 1·15 | 2·00 | 2·00 | 1·15 | 1·19 | 1·15 | 1·18 | 1·10 | 1·15 | 2·00 | 1·19 | 1·18 | 1 10 | |
| 1·15 | 2·00 | 1·15 | 2 00 | 1·18 | 2·00 | 2·00 | 1·18 | 2 00 | 1·18 | 2·00 | 2·10 | 1·15 | 2·00 | 1·12 | 2·00 | 1·10 | 1·15 | 2 00 | 2·00 | 1·18 | 1·10 | |
| | | | | | | | | | | | | | | | | 1·10 | | | | | | |
| 7·00 | 8·00 | 7·00 | 8·00 | 7·13 | 8·00 | 8·00 | 7·12 | 7·17 | 6·17 | 8·00 | 8·09 | 7·00 | 7·18 | 6·05 | 7·14 | 6·15 | 7·00 | 7·16 | 7·19 | 7·11 | 5·19 | |

REMARKS: 1st Car on #63 contained dirty coal
1/2 of usual weight allowed.

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When the vein of coal outcrops within the owner's property and is flat, the best method of opening is by the drift, the inclination being so slight that it forms a natural drainage. If there is considerable inclination not beyond a limited degree, it should be opened with a slope. If the inward dip is too strong a shaft should be sunk in or near the center of the coal basin. There are two general systems of mining in the United States, the room and pillar and the longwall. Of the two the former is the most popular in the bituminous regions and in nearly every instance is the system used. The modifications to both systems are too numerous and varied to classify here.

In the pillar and room system the coal is first mined from places termed rooms, which are driven either square from or at an angle to the haulageway. The forms of rooms may be roadway, incline or chute, according to the conditions existing. When mining, the coal is all taken out to within the required width of the room, except some pillars of coal which are left for the purpose of supporting the roof and preventing a fall of rock. After the coal is all taken out in a section of the mine the pillars of coal are mostly drawn in that section. Prop timbering is extensively done to aid in supporting the roof.





LOADED INTO R R CARS

| | PCR | NR | |
|---|---|---|---|
| | 1 | 45 | 30 |
| | 1 | 1 | 10 |
| | 5 | 1 | 16 |
| | 14 | 1 | 10 |
| | 19 | 2 | 00 |
| | 11 | 1 | 04 |
| 163-17 | 43 | 1 | 19 |
| | 60 | 2 | 00 |
| | 65 | 2 | 00 |
| | 53 | 2 | 00 |
| | 54 | 1 | 18 |
| | 50 | 2 | 00 |
| | 49 | 1 | 15 |
| 162-19 | 31 | 2 | 00 |
| | 68 | 1 | 09 |
| | 16 | 2 | 00 |
| | 10 | 2 | 00 |
| | 7 | 2 | 00 |
| | 58 | 2 | 00 |
| | 48 | 2 | 00 |
| 164 05 | 3 | 2 | 00 |
| 491-01 | | 37 | 01 |

SOLD

18 - 1·19 16 - 2·00
15 - 2 00
12 1·12
68 - 1·10
22 - 2 00
11·01

HOUSES

50 - 2 00
49 - 1·15
3·15

ENGINE

26 - 2·00
2 2 00
48 - 2·00
65 - 2·00
8·00

R R CARS

37 - 01 58 - 00
27 - 08 37 - 15
58 - 00 36 - 19
36 - 19 58 - 02
58 - 02 58 - 01
58 - 00 26 - 00
37 - 18
468-05

TOTAL MINED 491-01

| TOTAL CARS |
|---|
| 320 |
| CARS ROCK |
| 55 |
| CARS COAL |
| 265 |
| AVERAGE WT. |
| 1-17 |

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In the longwall system of mining the coal is all taken out as the work proceeds. To support the roof walls are built on each side of the roadway in the waste area, and on these the roof rests and settles firmly. This system is more adapted to veins of coal having no faults and a moderate pitch. The system is the more economical of the two in regard to the timber, etc.

Keeping the records and accounts of the enormous production of coal is a very important branch of book-keeping, and to those not having an understanding of its fundamental principles is very complicated. There are many chances for errors, however slight they may be, from an hundredweight of coal to the dollars and cents on the pay roll or ledger. The standard of perfection in correctness is hard to attain, but there are forms and systems which if used would add greatly toward the goal of efficiency.

The first aim is to have the work in such a manner that, by balancing, the least error that may have been made may be readily detected.

The second aim should be to have the books and accounts systematized for use in referring to in the least time possible to find the information desired.

To this end many forms have been devised and are in present use, certain points in some surpassing that of others. In the following the record

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| 1905 | | John White | | James Dolny | | Harry Gregor | | William Smith | | John Greey | | Charles Dempsey | | Edward Moss | | David Mumdorf | | Harry Patterson | | Robert Snow | | Ellen Myers | | Silas Purcell | | Isaac Day | | Chalmer Dewey | | Daniel Diehl | | Grant Buhl | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MONTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| March | Day | 54 | | 55 | | 56 | | 57 | | 58 | | 59 | | 60 | | 61 | | 62 | | 63 | | 64 | | 65 | | 66 | | 67 | | 68 | | 69 | | | |
| | 1 | 5 | 02 | 6 | 10 | 3 | 15 | 4 | 00 | 5 | 10 | 3 | 10 | 4 | 09 | 6 | 05 | 7 | 13 | | | 5 | 09 | | | 4 | 10 | 5 | 00 | | | 4 | 00 | | |
| | 2 | 3 | 00 | 7 | 08 | 5 | 10 | 4 | 00 | 5 | 10 | 4 | 00 | | | 7 | 09 | 7 | 14 | 3 | 09 | 5 | 02 | 6 | 01 | 5 | 00 | 7 | 11 | 7 | 01 | 5 | 10 | | |
| | 3 | 6 | 08 | 7 | 10 | 6 | 00 | 4 | 00 | 5 | 15 | 3 | 10 | 5 | 00 | | | | | 5 | 10 | 6 | 10 | 9 | 09 | 6 | 00 | 5 | 09 | 7 | 02 | | | | |
| | 4 | 4 | 00 | 8 | 00 | 6 | 00 | 4 | 00 | 6 | 00 | 3 | 10 | | | 5 | 10 | 8 | 09 | | | 4 | 03 | 3 | 10 | | | 8 | 00 | 5 | 10 | | | | |
| | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | 3 | 10 | 6 | 10 | 6 | 17 | 6 | 00 | 3 | 15 | | | | | | | 4 | 03 | 6 | 08 | 5 | 09 | 5 | 03 | 4 | 00 | 7 | 03 | 6 | 00 | | | | |
| | 7 | 4 | 00 | 9 | 00 | 6 | 09 | 4 | 00 | 7 | 08 | 8 | 04 | 6 | 02 | 5 | 09 | 6 | 08 | | | 6 | 00 | 9 | 02 | 3 | 09 | 8 | 04 | 4 | 00 | | | | |
| | 8 | 5 | 08 | 4 | 00 | 3 | 15 | 4 | 00 | 5 | 09 | 6 | 09 | 5 | 03 | 6 | 03 | 7 | 10 | 3 | 09 | 4 | 00 | 7 | 14 | 4 | 18 | | | 6 | 00 | | | | |
| | 9 | 3 | 08 | 4 | 00 | | | 6 | 00 | 3 | 04 | | | 4 | 09 | 8 | 10 | 8 | 00 | 4 | 10 | 8 | 09 | 5 | 08 | 5 | 10 | 5 | 09 | 4 | 00 | | | | |
| | 10 | | | 5 | 10 | 4 | 09 | 6 | 00 | 8 | 10 | 3 | 15 | 6 | 00 | 4 | 09 | 4 | 09 | 5 | 00 | 7 | 10 | | | 6 | 02 | 6 | 10 | | | | | | |
| | 11 | 4 | 00 | 4 | 18 | 4 | 00 | 4 | 00 | | | 4 | 00 | | | | | 6 | 10 | 5 | 01 | 8 | 00 | 6 | 04 | | | 4 | 00 | 8 | 00 | | | | |
| | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 | 4 | 00 | | | 5 | 10 | 6 | 00 | 7 | 16 | | | + | 00 | 3 | 06 | 4 | 10 | 6 | 00 | 4 | 03 | 7 | 16 | 4 | 03 | 4 | 00 | 6 | 10 | | | | |
| | 14 | 6 | 00 | 3 | 15 | 4 | 00 | 6 | 00 | 5 | 10 | 4 | 02 | | | 4 | 15 | 5 | 00 | 4 | 00 | 6 | 04 | 8 | 00 | 7 | 10 | 6 | 00 | 5 | 15 | | | | |
| | 15 | 3 | 15 | 4 | 00 | 6 | 00 | 4 | 00 | 4 | 00 | 3 | 10 | 6 | 00 | 7 | 09 | | | 6 | 14 | 7 | 05 | | | 4 | 00 | | | 4 | 00 | | | | |
| First Half Totals | | 52 | 11 | 66 | 01 | 62 | 05 | 62 | 00 | 68 | 07 | 48 | 10 | 41 | 03 | 57 | 03 | 70 | 06 | 49 | 16 | 76 | 04 | 68 | 02 | 55 | 02 | 70 | 06 | 63 | 18 | 9 | 10 | | |
| | 16 | 4 | 00 | 6 | 14 | | | 4 | 01 | 8 | 10 | | | 7 | 15 | 6 | 09 | | | 4 | 09 | 4 | 10 | 7 | 14 | 3 | 10 | 4 | 01 | | | | | | |
| | 17 | 5 | 10 | 7 | 01 | 5 | 01 | 4 | 00 | 7 | 03 | 4 | 10 | 7 | 16 | 6 | 10 | 4 | 10 | 6 | 14 | 6 | 15 | 7 | 15 | 4 | 09 | | | | | | | | |
| | 18 | 6 | 00 | 6 | 10 | 4 | 03 | 6 | 00 | 4 | 10 | 7 | 00 | 7 | 16 | 6 | 09 | 5 | 09 | 6 | 14 | 7 | 00 | | | 5 | 01 | 3 | 10 | | | | | | |
| | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 20 | 4 | 10 | | | 3 | 02 | 8 | 00 | 5 | 00 | 8 | 00 | 7 | 15 | | | 6 | 04 | 6 | 14 | 8 | 10 | 7 | 16 | 4 | 03 | 6 | 00 | | | | | | |
| | 21 | 5 | 12 | 7 | 03 | 6 | 10 | 4 | 03 | 6 | 10 | 4 | 10 | 7 | 15 | 5 | 01 | 6 | 10 | 6 | 15 | 9 | 00 | 7 | 19 | 6 | 09 | 5 | 10 | | | | | | |
| | 22 | 3 | 15 | 8 | 15 | 6 | 10 | 4 | 00 | 8 | 00 | 7 | 00 | 7 | 16 | 5 | 04 | 8 | 01 | 6 | 15 | | | | | | | | | | | | | | |
| | 23 | 4 | 00 | 8 | 00 | 6 | 10 | 4 | 10 | 7 | 10 | 7 | 00 | 7 | 18 | 3 | 10 | 8 | 02 | | | 4 | 10 | 7 | 15 | | | | | | | | | | |
| | 24 | 4 | 00 | 6 | 00 | 6 | 10 | 5 | 15 | 7 | 05 | 6 | 00 | 7 | 17 | 6 | 09 | | | 5 | 10 | | | 7 | 16 | | | | | | | | | | |
| | 25 | 3 | 10 | 4 | 00 | 6 | 09 | | | 6 | 09 | | | 7 | 18 | 5 | 10 | 9 | 15 | | | 4 | 10 | 7 | 18 | | | | | | | | | | |
| | 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 27 | 4 | 00 | 8 | 00 | 8 | 00 | 6 | 00 | 5 | 00 | 5 | 10 | 8 | 10 | 6 | 03 | 7 | 16 | 5 | 10 | 6 | 10 | 7 | 16 | | | | | 4 | 15 | | | | |
| | 28 | 7 | 10 | 6 | 00 | 5 | 10 | 4 | 00 | 6 | 00 | 6 | 00 | 8 | 10 | 7 | 10 | | | 5 | 10 | 8 | 00 | 7 | 15 | | | | | 6 | 01 | | | | |
| | 29 | 4 | 00 | 4 | 10 | 6 | 00 | 6 | 00 | 4 | 00 | 7 | 10 | 8 | 10 | | | 7 | 15 | 5 | 10 | 8 | 00 | 6 | 00 | | | | | 7 | 03 | | | | |
| | 30 | 5 | 10 | | | 4 | 15 | 8 | 00 | 8 | 00 | | | 8 | 10 | 7 | 10 | | | 5 | 10 | 5 | 15 | | | | | | | 9 | 00 | | | | |
| | 31 | 7 | 12 | 7 | 17 | 6 | 17 | 8 | 00 | 8 | 09 | 7 | 00 | 7 | 18 | 6 | 05 | 7 | 14 | 6 | 15 | 7 | 00 | 7 | 16 | 7 | 19 | 7 | 11 | 5 | 19 | | | | |
| Second Half Totals | | 69 | 09 | 80 | 10 | 75 | 17 | 72 | 09 | 95 | 06 | 72 | 00 | 112 | 04 | 72 | 00 | 71 | 16 | 72 | 06 | 80 | 00 | 83 | 15 | 31 | 06 | 26 | 12 | 32 | 18 | | | | |
| Monthly Totals | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Slope Mine

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665



| | | | Distribution | | | | |
|---|---|---|---|---|---|---|---|
| MONTH | DAY | CARS (ROCK) | CARS (COAL) | AVERAGE WT | SOLD | HOUSES | ENGINE | R.R. CARS | TOTAL |
| | 1 | 25 | 2 50 | 1 16 | 10 10 | 2 00 | 4 00 | 433 10 | 450 00 |
| | 2 | 32 | 2 59 | 1 16+ | 8 00 | 2 00 | 4 00 | 446 10 | 460 10 |
| | 3 | 30 | 2 68 | 1 16+ | | 3 15 | 5 10 | 476 00 | 485 05 |
| | 4 | 41 | 2 50 | 1 16+ | 4 05 | 1 10 | 8 00 | 441 10 | 455 05 |
| | 5 | | | | | | | | |
| | 6 | 15 | 2 51 | 1 16+ | | 1 15 | 6 00 | 447 00 | 454 15 |
| | 7 | 10 | 2 63 | 1 17- | 3 10 | 1 18 | 9 00 | 470 14 | 480 02 |
| | 8 | 10 | 2 68 | 1 17- | 4 00 | 2 00 | 4 00 | 480 00 | 490 00 |
| | 9 | 10 | 2 65 | 1 17- | 10 09 | 2 00 | 6 00 | 469 15 | 488 09 |
| | 10 | 15 | 2 60 | 1 17- | | 3 10 | 6 00 | 466 05 | 475 15 |
| | 11 | 24 | 2 63 | 1 16+ | 3 10 | 2 00 | 4 00 | 467 00 | 476 10 |
| | 12 | | | | | | | | |
| | 13 | 18 | 2 64 | 1 16+ | | 1 15 | 5 10 | 472 15 | 480 00 |
| | 14 | 20 | 2 65 | 1 16+ | | 1 15 | 5 10 | 471 05 | 478 10 |
| | 15 | 20 | 2 60 | 1 16+ | | 1 16 | 6 00 | 465 05 | 475 01 |
| | First Half Totals | 2 70 | 33-81 | 1-16+ | 44-09 | 27-14 | 68-10 | 6007-09 | 6147-17 |
| | 16 | 21 | 2 60 | 1 17- | 8 10 | 1 18 | 6 00 | 458 12 | 475 00 |
| | 17 | 20 | 2 60 | 1 16+ | 8 10 | 2 00 | 6 00 | 458 00 | 474 10 |
| | 18 | 20 | 2 60 | 1 17- | | 2 00 | 4 00 | 469 03 | 475 03 |
| | 19 | | | | | | | | |
| | 20 | 25 | 2 63 | 1 17- | 9 00 | 2 00 | 6 00 | 463 14 | 480 14 |
| | 21 | 33 | 2 55 | 1 17- | 8 00 | 2 00 | 4 00 | 451 00 | 465 00 |
| | 22 | 34 | 2 70 | 1 15+ | 4 00 | 2 00 | 6 00 | 466 09 | 478 09 |
| | 23 | 30 | 2 63 | 1 16+ | | 2 00 | 5 10 | 471 10 | 479 00 |
| | 24 | 31 | 2 70 | 1 16- | 3 10 | 2 00 | 6 00 | 474 00 | 485 10 |
| | 25 | 30 | 2 69 | 1 16- | | 3 19 | 4 00 | 476 06 | 484 00 |
| | 26 | | | | | | | | |
| | 27 | 28 | 2 65 | 1 16+ | 6 01 | 2 00 | 4 00 | 467 19 | 480 00 |
| | 28 | 35 | 2 64 | 1 16+ | | 2 00 | 6 00 | 470 00 | 478 00 |
| | 29 | 40 | 2 60 | 1 16+ | 4 04 | 2 00 | 4 00 | 463 06 | 473 10 |
| | 30 | 41 | 2 60 | 1 16+ | | 2 00 | 3 15 | 469 05 | 475 20 |
| | 31 | 55 | 2 65 | 1 17+ | 11 01 | 3 15 | 8 00 | 468 05 | 491 01 |
| | Second Half Totals | 5-43 | 36-84 | 1-16+ | 62-16 | 31-07 | 73-05 | 6527-09 | 6694-17 |
| | Monthly Totals | 8 13 | 70-65 | 1-16+ | 107-00 | 59-01 | 141-15 | 12534-18 | 12842-14 |

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**Pay Roll Enterprise Coal Co.** Slope **Mine** March 16 **1905 to** March 31 **1905, inclusive**

| No | Names | Tonnage Rate | Amount | Yards Rate | Amount | Days Rate | Amount | TOTAL | Sundries Cost | House Rent | Coal | Supplies | Check Off | TOTAL | Balance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 64 | Alex. Myers | | | | | | | | | | | | | | |
| 65 | Silas Farrell | | | | | | | | | | | | | | |
| 66 | Isaac Day | | | | | | | | | | | | | | |
| 67 | Chalmer Dewey | | | | | | | | | | | | | | |
| 68 | Daniel Diehl | | | | | | | | | | | | | | |
| 69 | Grant Buhl | | | | | | | | | | | | | | |
| 70 | James True | | | | | | | | | | | | | | |
| 71 | John White | | | | | | | | | | | | | | |
| 72 | Oliver Grace | | | | | | | | | | | | | | |
| 73 | Henry Gray | | | | | | | | | | | | | | |
| 74 | Charles Dewey | | | | | | | | | | | | | | |
| 75 | Walter Mador | | | | | | | | | | | | | | |

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Manifest No.

Shipped to Drawley Mfg Co.

Destination Albany N Y.

Route P.R.R. - Dayd H.

Shipped from Slope Mine

March 31 1905

| Car Initial | Car No. | Mine Wt. | R.R. Weight | No. Cars Shipped |
|---|---|---|---|---|
| PCR+NR | 14530 | (37-01) 82,992 | 83000 | |
| | | 82992 | 83000 | 1 |
| Weight Brot Forward | | 3,093,450 | 3,100 500 | 40 |
| Total Weight to Date | | 3,176,442 | 3,183,500 | 41 |

Remarks Monthly Gain 7058 lbs

From ENTERPRISE COAL CO. March 31 1905

Consignee Drawley Mfg Co.

Destination Albany N.Y.

Route PRR - D+H

| Car Initial | Car No. | Weight |
|---|---|---|
| PCR+NR | 14530 | 83000 |

From ENTERPRISE COAL CO. March 31 1905

Consignee Drawley Mfg Co.

Destination Albany N.Y.

Route PRR - D+H

| Car Initial | Car No. | Weight |
|---|---|---|
| PCR+NR | 14530 | 83000 |

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of the car of coal is first taken as it issues from beneath the surface of the earth and traced until it reaches and is emptied into the railroad car and shipped to one of the many markets which its use requires. Any kind of





Slope Mine March 16 - 31 1905

**YARDAGE**

| Location | Name | Yards | Rate | Amount |
|---|---|---|---|---|
| | Brought forward | | | 550 00 |
| 2nd Right heading | Alex Myers | 5 | 1 86 | 9 30 |
| " " " | Isaac Day | 5 | 1 86 | 9 30 |
| " " " | Daniel Diehl | 10 | 1 86 | 18 60 |
| " " " | Grant Buhl | 10 | 1 86 | 18 60 |
| 4th Left heading | David Mundorf | 4 | 62 | 2 48 |
| " " " | Edward Moss | 4 | 62 | 2 48 |
| " " " | John Green | 10 | 1 24 | 12 40 |
| | Total | | | 623 16 |

March 31 1905

Slope **Mine**

**Mine Foreman's Report**

Remarks { Out of Tee Iron Spikes

| | Hours | Rate | | Hours | Rate |
|---|---|---|---|---|---|
| DELIVERY DRIVERS | | | CAR REPAIRS | | |
| James True | 8 | 2.27 | Joseph Delaney | 8 | 2.40 |
| John White | 8 | 2 27 | | | |
| Oliver Grace | 8 | 2 27 | WEIGHMASTER | | |
| DELIVERY TRAPPERS | | | James Dooin | 8 | 2.25 |
| Harry Gray | 8 | 94 | TIPPLE COAL DUMPERS | | |
| Charles Dewing | 8 | 94 | George Mitchell | 8 | 1.76 |
| DELIVERY TRIP RUNNER | | | Ross McGee | 8 | 1.76 |
| Walter Mador | 8 | 2 27 | ENGINE ENGINEERS | | |
| MT of WAY ROADSMAN | | | William Wing | 8 | 300 |
| Ray Denis | 8 | 2 27 | Roy Smith | 8 | 300 |
| TIMBERING | | | STABLE STABLEMAN | | |
| Edward Green | 8 | 2 27 | Randolph McDonald | 8 | 2.00 |
| Henry Mays | 8 | 2 27 | SHIFTING SHIFTER | | |
| | | | Leo De Forrest | 8 | 1.89 |
| PUMPERS | | | HEADING ROCK WORK | | |
| John Jones | 8 | 2 00 | Louis Peck | 8 | 2.27 |
| SMITHING | | | MISCELLANEOUS | | |
| Benj Widener | 7 | 2 40 | | | |
| | | | None | | |
| | | | | | |
| | | | | | |
| | | | Charles LeRoy M.F. | | |

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mine or form of mining can apply the system for its use, making the name of the various accounts to suit the requirements.

By a glance the engineer sees that the first train is composed of six cars, and having his daily report before him he quickly notes the amount thereon, and so on until the day's work is finished, the report totaled and completed and sent to the company's office for recording and filing. Under the head of remarks he may give any information necessary to inform the office of the supplies which he is in need of. In noting the number of cars drawn he puts down the total, irrespective of coal or rock, or any other material which they may contain, as they are divided into their proper classification at the coal scales. The weighmaster notes how many cars of coal are weighed, how many cars of rock or debris dumped, etc., the total of which should balance with the total number of cars as found on the engineer's report.

The coal arriving at the weigh office is weighed and the weight marked to the number of the miner corresponding with the number of the check or ticket attached to the car. If that particular car is loaded into the railroad car it is marked in the railroad car column, and under the number and initial of the car in which it is loaded, or whatever disposition is made of the coal, it should be marked in the column to which it belongs. At the close of the working period the coal sheet is totaled for each miner separately and then across the page, and the result from each section added should balance to the hundredweight with the total of the disposition columns.

Under remarks the weighmaster may state anything of importance, such as a car being wrecked totally, or partially, and which may be brought up for future adjustment with the miner loading the car. The sheet being counted, balanced and completed in every respect, is then ready for entry in the regular coal ledger in use. The total of each miner's weight according to his number is entered from the daily coal sheet to the corresponding number on the coal ledger, on the line dated and corresponding with the date of the daily coal sheet.

Supplies Sold — March 31 1905

| NAME | MISCELLANEOUS | CAPS | | | FUSE | | | DYNAMITE | | | POWDER | | | OIL | | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | Charge | On Hand | Coils | Charge | On Hand | Sticks | Charge | On Hand | Kegs | Charge | On Hand | Gal. | Charge | On Hand | | |
| | | | | | | | | | | | | | | | | | | |

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The customary rule or practice with many companies is to pay their laborers each half month, therefore the coal ledger is ruled for adding each miner's coal and the distribution of the total output each half month, and so arranged that the monthly total of each and all can be ascertained by adding the two half month's totals. By balancing to insure correctness before transferring to the pay roll the totals of each miner's coal added across the page of the ledger should balance with the totals of each day's output added vertically, and this in turn should balance with the addition of the different columns of distribution, totaled.

The coal ledger balancing in every detail is then ready for entry upon the semi-monthly pay roll of the company, entering the sum total of each miner's coal according to name as found on the coal ledger directly above his number. The pay roll column of coal is then totaled, and the result corresponds with the total on the coal ledger.

Each miner's weight of coal is then multiplied by the rate of mining as designated in the column between the column of coal and that of dollars and cents and the result placed in the column for dollars and cents. This is then totaled and the result in dollars and cents should balance with the total of the coal multiplied by the rate of mining paid.

Before taking up any further phase of the subject, we will present a form of manifest by which to ship the coal. There being two required in most instances, it is best to have them made with carbon copies.

When a car is shipped to any point the weight of the coal loaded in the car and as weighed at the mine is placed in the mine weight column. When the weight for the car as weighed by the railroad is returned to the coal company it is placed in the railroad weight column opposite that of the mine weight, and by carrying the total of the weights forward the gain or loss in weight can be ascertained for each car, shipment, day or month.

The next item on the pay roll is then considered, which is that of yardage. Unless a miner quits or is discharged it is not customary for the mine

SUPPLY LEDGER — March 1905

| Name | Balance Brt Fwd | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | Total | Pay Roll Credit | Balance Forward |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | |

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No. 31 March 31 1905

This Voucher is subject to correction before pay day

Mr. James Dolan
in account
with Enterprise Coal Co.

| | | | Cr. $ | cts. |
|---|---|---|---|---|
| By 67 Tons 1 cwt Coal | @ 62 | | 41 | 85 |
| " 10 Yards | @ 62 | | 6 | 20 |
| " " | @ | | | |
| " " | @ | | | |
| " 1 Days Work | @ 227 | | 2 | 27 |
| " " | @ | | | |
| " " | @ | | | |
| | | | 50 | 32 |
| | Dr $ | cts | | |
| To Smithing | | 31 | | |
| House Rent | 3 | 00 | | |
| " Coal | | | | |
| Supplies | 5 | 01 | | |
| " Check Off | 1 | 48 | | |
| | | | 9 | 80 |
| Received payment in full | | | 40 | 52 |
| Signed | | | | |
| Pay To | | | | |
| Signed | | | | 115 |

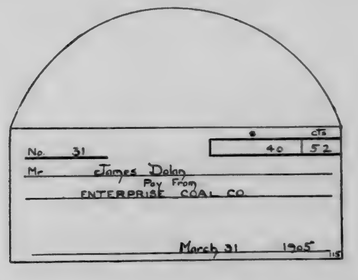
foreman to measure the yardage until the end of the semi-monthly period. It is not necessary to have a special form of ruling for this, for the mine foreman, as the record taken in the mine on which to note the number of yards is nearly obliterated by the coal dirt. If desired for the foreman to have a special form on which to place the yardage, that of the yardage book may be used, omitting the column for dollars and cents. The yardage being given to the book-keeper, either written or oral, is placed on the regular yardage book, according to the location in the mine of the miner for which the measurement is taken.

By stating the location of the mine you can by small effort see what the amount in any particular location is costing. The number of yards multipled





by the rate per yard gives the amount in dollars and cents to be paid. This column is totaled and the result placed in the yardage book and is then transferred to the pay roll in the yards, rate and dollars and cents columns and the total of the latter column on the pay roll should balance with the total of the yardage book.




The next item for consideration according to its relative position on the company pay roll is the mine foreman's report of the men performing labor that is paid and rated by the day. The report is classified into the different accounts, and each man's name, the number of hours worked, and the rate to be paid, are marked under the name of the division for which he is employed for that day. By this method of classification the abstracting of the time book is rendered easy, so that you can ascertain the cost for each particular item. Under remarks, the mine foreman may give any information necessary to inform the office of supplies needed, or of any cause for an extra amount of men required.

The report is brought or sent to the office and entered on the time book, which is divided into the different accounts the same as found on the mine foreman's report. The time book is ruled for one month on each sheet, but divided into semi-monthly sections, one section placed on each page. At the end of each half month it is counted up in days, and multiplying the number of days worked by the rate per day equals the amount of dollars and cents to be paid. The dollars and cents column on the time book is then summed and the total placed at the last of the column for the half month, and the name of the laborer, number of days worked, rate per day, and the amount in dollars and cents placed in their respective columns on the pay roll. Summing up the dollars and cents column on the pay roll for the day labor performed, should balance with the column as found on the time book.

At the end of the month each account for the two semi-monthly periods is summed, and the result placed under the title of abstract as found on the time book. The abstract total column should balance with the sum of the two semi-monthly columns as found on each page of the time book. The totals of the different accounts are then ready for entry on the double entry

March 31 1905

**ACCIDENT REPORT**

Slope **Mine**

| | |
|---|---|
| Name of Person<br>John Green | Cause of Injury<br>Fall of rock |
| Nationality by Birth<br>American | Time Accident Occurred<br>9:35 A.M. |
| Citizen<br>Yes | Name of Person first at Scene of Accident<br>James Grady |
| Occupation<br>Coal Digger | Condition of Injured.<br>Slight injury and speedy recovery assured |
| Age<br>35 years | Remarks<br>Caused by injured neglecting to timber at the proper time |
| Married or Single<br>Married<br>If married, how many children<br>Six | |
| Nature of Injury<br>Bruised about head and shoulders | |

Charles Le Roy
Mine Foreman

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books of the company and the cost sheet, an illustration of which is given.

The pay roll is then completed on the debtor side and the total amount for the different kinds of labor performed by each man placed in the total column on the debtor side of the pay roll. The sum of the totals should balance with the addition of the total of the coal column, yardage column, and day labor column.

We are then ready to consider the other phase of the pay roll on which the men's indebtedness to the company for the various items are placed. The smithing cost is usually rated according to the amount of coal mined and the coal diggers are the only ones charged with the smithing rate. The column is summed and the result placed in the proper finis of the column.





Mine — Monthly Cost Sheet

| | PAY ROLL LABOR | | | DR. BILLS MERCHANDISE | | CASH PAID OUT | | TOTAL | | | COAL DISTRIBUTION | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. Tons Mined | Cost per Ton | Amount | Cost per Ton | Amount | Cost per Ton | Amount | Cost per Ton | Amount | | | |
| Mining | | | | | | | | | | | No. Tons Mined | |
| Heading | | | | | | | | | | | Sold | |
| Air Course | | | | | | | | | | | Houses | |
| Delivery | | | | | | | | | | | Engine | |
| Mt. Way | | | | | | | | | | | R.R. Cars | |
| Timbering | | | | | | | | | | | | |
| Pumpers | | | | | | | | | | | In Cars | |
| Smithing | | | | | | | | | | | In Cars | |
| Car Repairs | | | | | | | | | | | | |
| Weighmaster | | | | | | | | | | | | |
| Tipple | | | | | | | | | | | | |
| Engine | | | | | | | | | | | | |
| Stable | | | | | | | | | | | | |
| Shifting | | | | | | | | | | | | |

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As most companies own more or less houses for rent to their laborers, a form of rent book is required, on which the number of the house rented, the name of the renter, the date leased, date moved, and the rent as paid each half month are found.

The rent totaled on the pay roll should balance with the total as found on the rent book for each period of rental.

Many of the miners who work for the company, but live in their own homes or rented houses other than those of the company, buy their coal for fuel from the company for which they are working and desire it to be deducted from the pay for their labor. The keeping of this record of the coal purchased by the laborers is so simple that a common form of day book may be used on which to place the amount purchased as found on the daily coal sheet in the coal sold column.

This item is counted at the end of the semi-monthly period in which it occurs and placed on the payroll, in the coal sold column, the total of which should balance with the total as found on the Coal Sold Book.

Where the company has no store for the sale of general merchandise, they usually have a supply house from which the neecssary supplies for use in and about the mine are sold to the men. For this the one having charge of the supplies should make a daily report to the office of the amount of each article sold and to whom it is sold. By using the form of report here given and subtracting each sale from the preceding amount on hand it can be readily seen at a glance how much is on hand at any time.

When an invoice of goods arrives the amount of same is added to the amount on hand at the time the invoice arrives. The daily report of the amount of supplies sold upon arriving at the office is entered on the supply ledger of the company in amount of dollars and cents only in the column and according to the date on which the sale is made. In case of a dispute on the

part of the purchaser as to the amount appearing on the pay roll, you would first refer to the supply ledger and see the several amounts and date on which they appear and then refer to the salesman's report for those dates to see the names of the articles in question.

In adding up the amount of each day's sales on the supply ledger the total should balance with the amount as totaled on the daily report. At the end of the semi-monthly period the ledger is totaled across the page and the result for each man's purchases set forth in the total column. The addition of the total column should balance with the sum total of the sales as totaled each day. The items are then ready for entry on the pay roll. The earnings of a man mostly covers the amount of supplies purchased, but in case of vice versa the difference between the amount purchased and the credit given as being paid on the pay roll is placed in the balance column and carried up to the balance brought forward column as found on each half month's ruling of the ledger. The total of the supply column on the pay roll should balance with the total of the credit column on the ledger, and the total of the credit column on the ledger and the balance forward column of the same should balance with the sum totals of the total column on the ledger. The total of the balance brought forward column on the ledger should balance with the total of the balance forward column.

In all fields of organized labor the check off or regular contribution to the union is collected through the office. This is treated as an indebtedness to the company on the pay roll and the total amount of same added to the amount of cash to be paid out on the pay day. The rate of check off is three per cent of the amount earned by digging, three per cent for yardage, and two per cent for day labor. The credit side of the pay roll is then added across the page according to each man's indebtedness and the result placed in the total column. The sum total of the total column should balance with the sum total of the columns added. The pay roll proving its correstness thus far, it remains to figure the amount to be paid out in cash. Subtracting the credit column from the debtor, leaves the amount or balance to be paid. By adding the credit column and the balance to be paid column the result should balance with the total of the debtor column.

It remains, then, to give an account in writing to each man of his earnings of and indebtedness to the company and payment made for the balance due. The illustration of voucher or statement here given is very simple and easily understood. The one for whom the statement is issued in receiving payment should sign his name in full, and if permitting another person to draw his pay should write the name of the person in the proper place, who upon receipt of money should sign his name in his own handwriting or mark.

In many communities it is necessary to pay in currency, not having banking facilities in that community to cash the checks if the company were to pay by same. The form of envelope should have the number and name and amount corresponding with that on the pay roll and statement placed





thereon. The currency being placed in the envelopes before starting to pay renders the paying of an enormous sum possible in a short while, the envelope being handed out as the signed statement is received.

There is a certain form of accident report required by law to submit to the mine inspector for the district in which the mine is located, but by the mine foreman filling in the answers on the following form and submitting it to the office, the answers on the report of the company to the inspector may be correctly written and delivered in a much shorter period than otherwise.

In the monthly cost sheet the amount expended for each account less any credits to that account occurring is placed in their respective columns and divided by period passed, before they are paid. To avoid any of these contingencies, all in the number of tons mined gives the cost of the coal per ton for that particular account, and totaled gives the total cost of the coal per ton.

The debtor bills, cost for labor and cash paid out may be added before dividing to reach the same result, but in the accompanying illustration each is treated separately and then added to find the total cost. The reason for treating each separately is that it gives a more general idea of where any increased cost of production occurs, whether it is in the labor, debtor bills or cash paid out. The cost of production is often increased by a purchase, such as car of feed for the stock, and which will probably last another month, thereby decreasing the next month's cost to the extent of half of the purchase, and by this system the place of increased cost moy be seen at a glance. —(*H. G. Mierley.*)

### (416) COAL BUSINESS—ACTUAL PROFIT IN.

The profit is the final test of the prosperity of a business. While the volume of business transacted has its importance, the profit derived from that volume of business is the actual test of the condition of the business. It is therefore important to know what actually constitutes profits, and to be more concise, what actually constitutes profits in a coal mining or coal producing company.

There has been great improvement in past years in the form of accounting for coal producing companies, especially among the larger concerns, but there is not the general knowledge of what actually constitutes cost and what actual profit is realized from the conduct of the business that there should be.

In considering this particular line of business it is important to remember that a coal producing company, while it is a producing or manufacturing company, is confronted with different conditions from an ordinary manufacturing company, and the same might be said of any company engaged in the extraction of mineral from the earth, whether it be coal or some other formation. Also there are many who will not agree with the definition of "manufacturing" as applied to a coal producing company, but it is a manu-

facturing business, in the sense that it is necessary to go through a form of manufacture or process in order to place the coal in a marketable condition.

A most peculiar fact is, that a mining company consumes certain of its fixed assets in producing its finished product, and at the same time depreciates certain other assets according to the volume of work done. The ordinary manufacturing concern does not, by the production of its product, consume any of its fixed assets, and the plant depreciation it undergoes is not dependent on the life of what might be called its raw material.

To elucidate this a comparison can be made between the ordinary manufacturing company and the coal producing company.

In an ordinary manufacturing business that makes a certain product, or certain products, for the market, it is found that its assets consist largely of its plant in which it makes its product and its working capital. While it may acquire from time to time certain other assets in the pursuit of its business, the objects for which capital are solicited are the erecting of buildings and installing machinery, viz., acquiring a plant, and the providing for sufficient working capital to purchase raw material and pay the necessary expenses of conducting the business.

When the plant is in operation, it is found that in the cost of producing the product there is figured the cost of the raw material, labor, factory expenses and repairs. To this cost is added general and selling expenses. Finally there is the cost of depreciation charged periodically to cover the decreased value and wasting of the plant. These costs are all deducted from revenue produced by sales, leaving a net profit for distribution among the stockholders or owners of the company.

In the items of cost is contained the expense of keeping the plant up to a proper state of efficiency; in other words, the cost of maintaining the asset. This cost may be handled in various ways; the most universal is to charge into expenses the current repairs. Such improvements and extensions as may be considered necessary from time to time are not considered as repairs but additions to cost of plant and an increase to the asset account. Depreciation charged on plant is considered then as applying to the whole asset. Sometimes, under certain conditions, improvements are considered as an expense, cutting down the increasing of the plant asset and the corresponding charge for depreciation.

It is not necessary in this article to consider the details of handling the accounts or how they are handled, this being merely an illustration of principle.

It will therefore be noted that available profit for dividend division is such only after deducting from revenue all costs, including depreciation. In other words, the dividend is the net profit paid on capital, after provision is made to keep that capital intact.

In considering a coal producing company the method of procedure seems somewhat changed. It is necessary to first purchase the raw material, then build the plant to produce the finished product. It is found then that the





coal producing company invests its capital in assets of coal lands or coal rights, plant and working capital.

It is therefore found that unlike the ordinary manufacturing company the coal producing company does not purchase its raw material from time to time, but purchases it as an asset.

While all raw material may be considered as an asset to the company owning it, it is not considered in that regard in an ordinary manufacturing business except when inventoried, as it is bought for immediate use and classed as raw material.

The coal producing company is then depleting its assets continually to produce its finished product, consequently decreasing its capital worth.

Similar remarks apply to its plant. This plant consists of buildings, tipple, machinery, equipment for taking out the coal, haulage, live stock, ties, rails, etc. No matter what sums are put into repairs to keep the plant up to a proper state of efficiency, it must deteriorate, and that greatly, when it is considered that this plant must be practically abandoned and sacrificed when the coal is exhausted. Certain portions of it may be sold, such as cars, engines, generators, live stock, rails, etc., but the sums realized are small, and there are certain plant assets, such as buildings, tipple, ties, etc., that are useless when the coal is gone.

The possible exception to this rule lies in the possibility of purchasing additional coal that can be hauled over the same tipple and with the same equipment, which proves that the life of the plant may not necessarily depend on the life of the first purchase of raw material, but this is the exception to the rule, and for which proper adjustment can be made when the case occurs.

Acknowledging that practically all coal producing companies consider labor, repairs, mine expenses, general and selling expenses in their estimate of cost of production, too many of them stop there, calling these expenditures the cost of producing the coal for the market, making no provision for depletion of coal or depreciation of plant.

I wish to digress here to remark that accounting authorities, who have dealt with mining costs and properties, agree there are two general methods of treating them. One is the payment of principal with dividends, making no provision for keeping capital intact or providing for the future purchase of other assets to take the place of those "wasted." The other is to reserve certain sums for depletion and depreciation, with the end in view of purchasing additional assets or property to take the place of those "wasted." Or, if it is decided later not to make new purchases, to distribute the sums so reserved to the stockholders pro rata with their holdings, as repayment of capital. It is also acknowledged and held that a mining proposition is what is known as a "wasting asset."

Investigation has proved that many mining companies do not properly provide against the exhaustion of their property or properly estimate profits.

Some of them have made partial provision for depletion and depreciation, but there does not seem to be a clearly defined method of handling this, nor a general understanding of what it actually does cost to produce bituminous coal.

Many mining companies have bonded their property, and the provision to pay their bonds, naturally coming out of profits, makes a certain reserve for depletion and depreciation. Some make a reservation of certain sums per ton for all coal mined and sold, or mined, which has practically the same result.

However, too many companies have not a proper system of accounting that provides for the depletion and depreciation, therefore they have not the necessary elements to make up their costs, and consequently do not figure actual profits..

There is a point here that I should like to call to the attention of the reader. An ordinary manufacturing business buys its raw material, the coal producing company obtains it from its assets, without considering at the same time that it is its raw material. There seems no good reason why coal in the ground should not be considered as raw material, and counted in the cost of the finished product, which is coal on cars ready for transportation. In this way coal mined would be charged as raw material in the costs, and eliminated from the asset account. It is needless to say that the books of the company should show the coal lands and coal rights purchased as a distinct item from plant and other assets.

Under these conditions coal mined would be classed as raw material which when the cost of labor, repairs, mine expenses, general and selling expenses was added, would be the cost of the finished product, after figuring in its proper place the charge for depreciation of plant. This places the depletion of the asset of raw material where it seems to belong in the cost of production, and it also shows that before making up total cost the depreciation has been figured, so that profit shown would be the actual profit on the investment retained intact, though the form of the investment may have changed.

If these facts were considered by all coal producing companies, the basis upon which selling prices are figured by some companies would be greatly changed.

The fact also that the cost of raw material per ton would be small when it is considered that this raw material is bought by the acre does not alter the feasibility of this form of accounting. The principal fault seems to be the overlooking of the heavy plant depreciation and the failure to consider the natural difficulties attending coal mining production, especially in certain states.

It is also a fact that the cost of coal property of all kinds is constantly advancing. Coal lands and coal rights purchased twenty and even ten years ago cannot possibly be replaced at anything like the original purchase price, and there is no renewal by any process of exhausted coal.





Taking these points into consideration it certainly seems wise for the coal producing company to see that it does make an actual profit, by putting into effect such reforms and checks on costs that no waste occurs, and to receive for its product such a price as is commensurate with the value of its investment and its duty to its stockholders. In other words, a coal producing company is entitled to the share of profit it could have expected had it placed its capital in an ordinary manufacturing business.

While it is always well to retain a good working capital and to be conservative about repayments of capital, there is no question raised here on that subject. If it is the desire of the stockholders to receive repayments of capital with dividends as often as possible, not setting the sums so reserved for depletion of raw material and depreciation of plant for reinvestment, this proper consideration of costs need not interfere with that decision. However it will assist in showing clearly what are dividends and what are repayments of capital; and this should be shown just as profits applicable for dividend division should only be classed as such after making all allowances for total costs and depreciation.

If all costs are not so figured before declaring dividends, they are not dividends at all. To class a division of profit and a repayment of capital under the head of dividends is clearly wrong, and it is evident that the company pursuing this course is acting to its own disadvantage, besides in all probability sacrificing its assets without adequate return.—G. E. Hutchison.)

## (417) COINS.—VALUE OF FOREIGN COINS IN UNITED STATES MONEY.

| COUNTRY. | DENOMINATION. | VALUE IN U. S. MONEY | | |
|---|---|---|---|---|
| | | $ | cts. | m. |
| Austria | Fourfold ducat | 9 | 13 | 1 |
| Austria | 4 florins (new) | 1 | 93 | 5 |
| Austria | Ducat | 2 | 27 | 9 |
| Belgium | 25 francs | 4 | 73 | 0 |
| Brazil | 29 milreis | 17 | 89 | 3 |
| Central America | 2 escudos | 3 | 68 | 7 |
| Central America | 4 reals | 0 | 48 | 7 |
| Chili | 10 pesos (dollar) | 0 | 91 | 1 |
| Columbia and South America generally. | Old doubloon | 15 | 59 | 2 |
| Columbia | 20 pesos, "Bogota" | 18 | 94 | 8 |
| Columbia | 20 pesos, "Medellin" | 19 | 05 | 5 |
| Columbia | 20 pesos "Popayan" | 18 | 90 | 2 |
| Costa Rica | 10 pesos | 8 | 44 | 7 |
| Denmark | 20 crown | 5 | 35 | 8 |
| Denmark | Old ten thaler | 7 | 89 | 8 |
| Egypt | Bedidlik (100 piasters) | 4 | 97 | 3 |
| England | Pound or sovereign (new) | 4 | 86 | 5 |
| France | 20 francs | 3 | 84 | 5 |
| German Empire | New 20 marks | 4 | 76 | 3 |
| Greece | 20 drachms | 3 | 44 | 2 |
| India (British) | Mohur, or 15 rupees | 7 | 10 | 5 |
| Italy | 20 lire | 3 | 84 | 5 |
| Japan | 20 yen | 19 | 94 | 2 |
| Mexico | Doubloon | 15 | 60 | 0 |
| Netherlands | 10 gilders | 3 | 99 | 3 |
| New Grenada | 10 pesos (dollars) | 9 | 67 | 4 |
| Norway | 20 crowns | 5 | 35 | 8 |
| Peru | 20 soles | 19 | 25 | 7 |
| Portugal | Coroa (crown) | 5 | 80 | 5 |
| Russia | 5 rubles | 3 | 97 | 5 |
| Spain | 100 reals | 4 | 96 | 2 |
| Spain | 80 reals | 3 | 86 | 2 |
| Sweden | Ducat | 2 | 23 | 6 |
| Tunis | Carolin (10 francs) | 1 | 93 | 8 |
| Turkey | 25 piasters | 2 | 90 | 5 |
| | 100 piasters | 4 | 36 | 8 |

## SILVER COINS.

| | | | | |
|---|---|---|---|---|
| Austria | Old rix-dollar | 0 | 05 | 4 |
| Austria | New florin | 0 | 45 | 8 |
| Austria | New Union dollar | 0 | 68 | 1 |
| Belgium | 5 francs | 0 | 91 | 5 |
| Bolivia | New dollar | 0 | 91 | 5 |
| Brazil | Double milreis | 0 | 95 | 4 |
| Canada | 20 cents | 0 | 17 | 6 |
| Central America | Dollar | 0 | 93 | 5 |
| Chili | Old Dollar | 0 | 99 | 6 |
| Chili | New dollar | 0 | 91 | 6 |
| China | Dollar (English mint) | 0 | 99 | 1 |
| China | 10 cents | 0 | 09 | 9 |
| Denmark | 2 rigsdaler | 1 | 03 | 2 |
| Egypt | Piaster (new) | 0 | 03 | 8 |
| England | Shilling (new) | 0 | 21 | 4 |
| England | Shilling (average) | 0 | 20 | 9 |
| England | Florin | 0 | 42 | 9 |
| France | 5 francs | 0 | 91 | 6 |
| North German States | Thaler, before 1857 | 0 | 67 | 8 |
| North German States | (Thaler (new) | 0 | 66 | 0 |
| South German States | Florin | 0 | 38 | 9 |
| German Empire | 5 marks (new) | 0 | 91 | 9 |
| Greece | 5 drachms | 0 | 82 | 2 |
| Hindostan | Rupee | 0 | 43 | 4 |
| Italy | 5 lire | 0 | 91 | 7 |
| Japan | 1 yen | 0 | 99 | 1 |
| Japan | 50 sen | 0 | 40 | 8 |
| Mexico | Dollar | 0 | 99 | 8 |
| Netherlands | 2½ gilders | 0 | 96 | 4 |
| Norway | Specie daler | 1 | 93 | 2 |
| New Grenada | Dollar of 1857 | 0 | 91 | 1 |
| Peru | Old dollar | 0 | 99 | 0 |
| Portugal | 500 reis | 0 | 46 | 8 |
| Roumania | 2 lei (francs) new | 0 | 34 | 1 |
| Russia | Ruble | 0 | 74 | 1 |
| Spain | 5 pesetas (dollars) | 0 | 91 | 4 |
| Sweden | Riksdaler | 0 | 26 | 0 |
| | 2 francs | 0 | 33 | 9 |
| Tunis | 5 piasters | 0 | 56 | 3 |
| Turkey | 20 piasters | 0 | 81 | 1 |

## (418) COLLATERALS.

Negotiable paper deposited to secure loans or credits, such as deeds of property, certificates of stock, bonds, notes and accounts receivable.

A memorandum should be made of the disposition and location of such certificates, notes, etc., but while some accounts open a "collateral account" on the ledger, in which to carry such memoranda, this is generally considered unnecessary.

## (419) COLLECTION AND EXCHANGE.

The amount charged by the bank for collecting notes and drafts through other banks, or clearing country or foreign checks.

These items are frequently carried in Interest and Discount account. Where a separate account is kept the cost of city collections and those made through collection agencies should be included.

## (420) COLLECTION SYSTEMS.

Systems employed in obtaining payment of due bills; customers' follow-up system; due date ticklers; credit reports, etc.

## (421) COLLECTIONS—FOLLOWING UP

The continued use of the sales ledgers by the credit man or collection department is an objection since the book-keepers often wish to use them





while the credit department is looking up various accounts, and this system was devised to overcome this as well as to increase collections. It has been successful in both.

Form 1 is the only special form needed and this means but little extra expense since statements of some sort must be purchased.

It may be ordered in as many lengths as required although for most houses two are sufficient.

Where possible statements should be made out on the typewriter, as this is a saving of time for the book-keeper, who can arrange his work to allow the ledger to be used for this purpose.

This gives a neater appearing statement than is possible where they are hand written.

If the typewriter is not available for this work, however, it is only necessary to secure a special carbon for pen work and a stiff round-pointed pen, when it will be possible to secure results entirely satisfactory, if judgment has been used in selecting the paper on which the statements are to be printed.

The dummies for the statements may be made out at odd times during the month so that on the first of the month there is nothing to do but enter the previous month's transactions.

As soon as the statements are made out the top part is detached and sent to the customer and the remaining sheet is placed in a binder.

This binder is used by whoever follows up collections and in making out statements all old charges should be itemized. This tells the customer just

5

Name Acct. No.

Address Limit of Credit $

Bills of Matured Amt. Due $

| Sent | Date | Year | Replies to statements and reasons for not paying drafts | Recd | Written |
|---|---|---|---|---|---|
| 1st Stat | | | | | |
| 1st Draft | | | | | |
| 2nd Stat | | | | | |
| 2nd Draft | | | | | |
| 3rd Stat | | | | | |
| 3rd Draft | | | | | |
| For Coll. | | With | | | |

Terms of Collection

Remarks

what old amounts are unsettled and gives the credit man an absolute knowledge of how long these balances have been carried, something that the regulation "balance" sometimes printed at the head of a statement does not show.

It also enables him to get after the claim department should it be necessary, as it frequently is.

It is labor wasted to pore over an account on the ledger every month to dig out items unpaid or carried in abeyance, as the amounts unsettled on any statement may be drawn off on the next statement made out. The total of course will agree with the ledger balance if the work has been done properly.

All items of cash paid and credit memos affecting the accounts, should be noted on the duplicate statement daily from the cash and credit books so that only live matter is shown.

A line is simply drawn through any item disposed of as the date paid or credited is of no consequence for this record.

In taking up an account the credit man thus has before him everything he desires to know regarding it and caash, etc., to the statements is a small

The time required in posting the cn write as strong a letter as necessary. item and if it is done daily the value of the record is much enhanced.

Very few houses are able to keep their ledgers posted as close as this and if the ledger must be depended on to furnish information regarding overdue accounts many of them are apt to be neglected, except, perhaps, at the first of the month or whenever statements are sent out.

If the practice in an establishment is to send a statement whenever an account is due this record is of even more value but the general rule among wholesalers seems to be to send statements as soon after the first of the month as possible and to allow a discount on any month's purchases if paid on or before the tenth of the following month.

The correspondence regarding accounts may be kept in the binder with the statements as the carbon copies of the letters may be on sheets punched for the purpose, making it unnecessary to look in the files, for a letter or to see if one has been written.

If the account in question is an old one or much overdue each letter on the subject should as a general thing be a little stronger than the one preceding it.

Form letters, even though typewritten, are in the opinion of the writer a poor proposition.—(L. Unckless).

### (422) DRAFTS ON CUSTOMERS MADE IN TRIPLICATE.

We illustrate a draft system which may be used by any business in which it is necessary to make drafts on customers in order to obtain settlement of accounts.

Drafts of this nature usually consist of three parts; the draft proper, which is sent to the bank and which is presented by the bank to the cus-

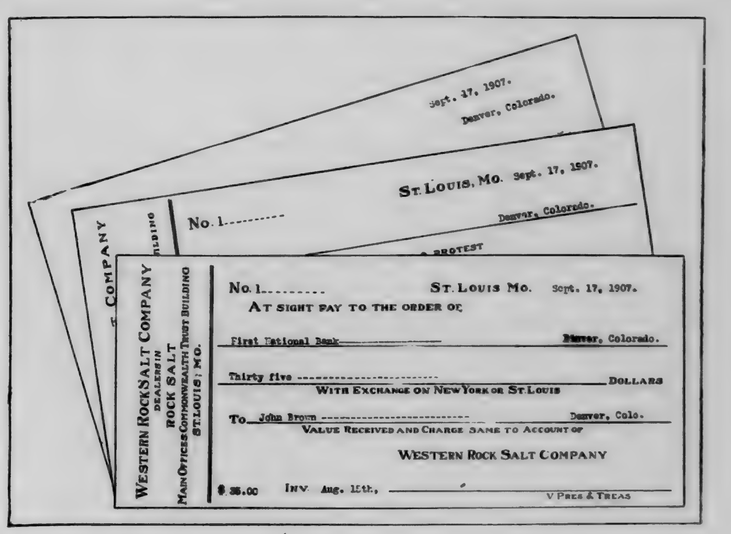




tomer, the letter or note of explanation accompanying the draft to the bank advising them what is to be done with the draft, and the voucher or notation kept in the office as a memorandum of the transaction.

I show a sample draft properly filled out and showing how it is used. The draft proper, the explanatory note, and the office record are made with one writing, and by having the office record a sheet of tissue paper and placing a double carbon. Only one sheet of carbon is necessary, thus saving the cost of the carbon and the extra time required to place two sheets instead of one.

The explanatory note to the bank serves the same purpose as a letter would, as it practically contains all that would be written in a letter. The draft and explanatory note are both signed by the proper people in the office. The office records enable one to keep track of all drafts out, and if they are not paid promptly to follow them up. When paid, these may be destroyed or filed away.—*(G. M. Bonnell.)*




### (423) COLLEGE CLUB ACCOUNTING.

There are seven departments, viz.:

Restaurant,
Bar,
Initiation Fees,
Dues,

Absence from Meetings,
Fines for Non-payment of Dues,
Library.

Receipts in bar and restaurant are shown by checks.

Dinners given either fortnightly or monthly, for which there is a fixed charge.

Steward summarizes his accounts on last day of month. See Form 1.

Members not in attendance at monthly business meetings are fined, as also those not paying their bills at the end of each month.

*Steward's Statement.*
*September, 1907.*

| | BAR. | REST. | | BAR. | REST. |
|---|---|---|---|---|---|
| Anson, E. B. | 8 90 | 35 40 | Mason, B. D. | 18 20 | 32 15 |
| Armstrong, F. C. | 7 10 | 70 90 | Noonan, V. G. | 24 | 41 70 |
| Burgess, K. F. | 12 05 | 30 10 | Olsson, J. M. | 2 15 | 31 45 |
| Comstock, F. R. | 23 85 | 42 30 | Pemberton, C. C. | 19 00 | 6 20 |
| Durand, E. P. | 41 30 | 3 15 | Rankin, J. G. | 60 50 | 3 |
| Duzenberg, K. C. | 9 40 | 16 75 | Ruskin, L. U. | 15 75 | 9 40 |

Form 2 is a bound five or six-column book, which can be obtained from any manufacturing stationer. Count off 25 pages for this book to run two years,—or, 37 pages for three years. It is not practicable to use a larger book, as it is too bulky. With a sharp knife cut 24 pages down on the double line separating the explanation column from the money columns. Do this as many times as required. For a club of 250 members, five times is enough.

Now, beginning on the first long leaf, which will bear the printed number "2" after it is cut, write the names of the members in alphabetical order,

FOOTING COLUMNS.

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Forward | 520 | 00 | 21 | 00 | 23 | 00 | 797 | 85 | 687 | 30 | 27 | 80 | 44 | 00 | 1112 | 70 |





and also grouped by classes. That is, write the names of members graduating with the class of 1908 from A to Z, class of 1909 from A to Z, and so on. In the date column write the ledger folios, which will begin with a page or two after the folio of the last income account—about page 25—and carry them consecutively down the page. Of course the ledger is made up to agree with this special journal, one page to a member. At the top of each column place the proper heading. The book will then appear as per the illustration.

The journal is self-proving. Add each money column across, and place sum in "total" column. Then add down, placing the sum of each column in its proper place. To prove, add bottom totals and then find sum of "total" column. They should be the same.

Posting is made to members' accounts, debiting the sum in the "total" column for each member. This done, credit the footing of each income account to its respective account.

There will be two or three columns in the special journal to spare, usually; but these will all be used occasionally, when such accounts as breakage, photographs, punch-night, baseball tickets, football tickets, etc., are used. The "total" column is generally added in pencil for the sake of convenience, and the sum of this column, of course, is not credited to any account.

The book-keeper can generally make his entries in this journal and get out his bills in three hours, with the help of the treasurer of the club, who usually assists on this occasion.

The treasurer's duty is to call off from the steward's statement the charges against members; while the book-keeper enters them. Then he takes the ledger and scans each account, fining delinquent members, which the book-keeper enters. Then the treasurer calls off from the special journal to the book-keeper the member's name and the charge against him for each account (the names of accounts being printed on the bill). This done, he again takes the ledger and calls off the "bills rendered." Then the bills are added, and that task completed.—*(C. A. Chessman.)*

## (424) COLLIERY ACCOUNTING.

See Coal Mining; Gold Mining.

## (425) COLOR.

At first sight this subject does not seem to have much to do with accounting, and yet it appears to be quite important to many who have to keep books of account.

1. Paper. Many book-keepers assert that white paper is injurious to the eyes and insist on yellow or amber tinted paper.

2. Ruling. Too many red down lines are supposed to dazzle the eyesight, and the more modern books of account are studies in harmonious colors so far as down-ruling is concerned.

3. Binding. When ledgers are divided into sections, such as City-Country, Indiana-Illinois, Iowa-Michigan, etc., it is convenient to bind them in different colors of leather—the usual distinguishing colors being Red, Black, Green. In the same way, where canvas covers are used the ledgers can be covered in White, Gray, or Black canvas.

4. Departments. The same method is adopted with a view to readily distinguish the various blanks of different departments. They are printed on sheets or cards of different colors.

### (426) COLUMNAR BOOKS.

A title applied to books of account in which separate columns are provided for accounts to which there are a large number of charges or credits per month. The totals of these columns are posted at the end of the month, thus saving the time and labor of posting the items in detail day by day. The columnar arrangement is now largely used on cash books, journals, department sales books, voucher, records and all books of statistical record.

For illustrations see Cash Books, Journals, Purchase Records, etc.

### (427) COMMISSION.

The percentage paid by one person to another as remuneration for goods sold as agent, or services performed.

The sum charged for buying and selling on behalf of another person, whether arrived at by percentage or otherwise.

### (428) COMMISSION ACCOUNT.

A ledger account representing commissions paid or payable.

The book-keeper will find it necessary to keep close watch of this account in order to secure his principals against paying commission on unreliable accounts, deductions for claims and allowances, rescinded orders, etc. It is therefore usual to carry a memorandum commission account, agents or salesmen being paid commission only as same is earned.

Commission paid is a selling expense and is charged against gross profit brought from the trading account, when there is a credit balance. When goods are bought "on sale" the sales are not usually included in the trading accounts, but are treated separately. Commissions paid and commissions received should not be mixed in one account.

### (429) COMMISSION AND BROKERAGE.

See Brokerage.

The charges made by brokers are usually on the par value of stocks dealt in, no matter what the market price might be. The broker, therefore, makes no more if the stock is at a premium and gets no less if the stock is at a discount.





### (430) COMMISSION PRODUCE ACCOUNTING.

The daily sales and summarized record is a very useful form, especially in provision businesses where all grades of merchandise are separated. After the distribution of the grades is made from the sales tickets, the total of each grade or kind of goods can be posted to the stock ledger.

If the commission house does a very large business, it is best to run a separate consignment ledger.

In a branch house report it is supposed that the branch house buys and ships its own merchandise, but returns are to be made to the home office.

Folio_____ No. 1

**SALES TICKET**

Date March 25

Sold To Miller & Company

Address 145 Dearborg St.

Chicago - Ill.

**ON CONSIGNMENT**

| Cases | | Lot | Doz. Lbs. | Price | Amount |
|---|---|---|---|---|---|
| 10 | Roberts Poultry | B | 1000 | 12 | 120 00 |
| 2 | Roberts Poultry | A | 200 | 14 | 28 00 |
| 5 | Roberts Poultry | A | 500 | 14 | 70 00 |
| 3 | Smith Eggs | A | 90 | 20 | 18 00 |
| | Cash Sales | | 5 | 15 | 75 |
| | Illustrated in this system as 5 tickets | | | | |

**DAILY SALES AND SUMMARIZING RECORD**

| SALES | | | | EGGS | | | EGGS | | | POULTRY | | | POULTRY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ticket | Credit | | Cash | Cases | Doz. | Amount | Cases | Doz. | Amount | Cases | Lbs. | Amount | Cases | Lbs. | Amount |
| 1 | 120 | 00 | | | | | 3 | 90 | 18 00 | 2 | 200 | 25 00 | | | |
| 2 | 25 | 00 | | | | | | 5 | 75 | 10 | 1000 | 120 00 | | | |
| 3 | 70 | 00 | | | | | | | | 5 | 500 | 70 00 | | | |
| 4 | 18 | 00 | | | | | | | | | | | | | |
| 5 | | | 75 | | | | | | | | | | | | |
| | 236 | | 75 | | | | 3 | 95 | 18 75 | 17 | 1700 | 218 00 | | | |

| SUMMARY | | | | | | |
|---|---|---|---|---|---|---|
| Cash Sales | | | | | 75 | |
| Credit " | | | | 236 | 00 | |
| Egg Mdse " | 3 | 95 | | 18 | 75 | |
| Poultry " | 17 | 1700 | | 218 | 00 | |
| Total Sales | | | | | | 236 75 |

I would suggest in a large establishment that a killing or slaughtering account be carried and the poultry purchased alive be first charged to this account. After they have been dressed and tagged, each lot having been kept separate, take their weight and charge poultry merchandise and credit killing or slaughtering account. This will allow the shrinkage to show where it belongs in killing. This account to be given credit for any sales for feathers or refuse of any kind. Close the loss in this account to expense.

The shrinkage after poultry is dressed is very small in the sales and an error in returns can be located very quickly if the shrinkage in dressing is not carried in the merchandise account. This same idea can be carried with eggs by carrying an egg candling account.

SALES TICKET.

This ticket is printed in duplicate, the original to be white and the duplicate yellow; both tickets, original and duplicate, to have the same number. Each set of tickets to be numbered numerically from 1 to 10,000 or more. No ticket must be destroyed, every ticket must be accounted for. If any error is made it must be marked void and kept in its place, and the next ticket used. The original (white ticket) is to be kept by the business house as their record. The duplicate (yellow ticket) is sent to the party to whom the merchandise is sold or consigned.

The charge on the sales ticket is the original and only charge, the posting to the customers' accounts to whom the charges are made, is done direct from the sales ticket, posting the date, ticket number, lot number, and amount. (If no cost price is carried on the sales ticket for the goods shipped on consignment post date, ticket number, lot and pound.)





**EGGS MDSE**

| Date | Folio | Lot | Cases | Doz. | Amount | Date | Lot | Cases | Doz. | Folio | Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mch 20 | 140 | Smith | | 100 | 15 00 | Mch 25 | | | | | 18 75 |
| " 31 | 140 | P & Son | | | 13 50 | " 31 | Journal | 3 | 95 | 140 | 9 00 |
| | | | | | | | Inventory | | 5 | | 75 |
| | | | | 100 | 28 50 | | | | 100 | | 28 50 |
| Mch 31 | | Inventory | | 5 | 75 | | | | | | |

**POULTRY MDSE**

| Date | Folio | Lot | Cases | Doz. | Amount | Date | Lot | Cases | Doz. | Folio | Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mch 16 | 140 | Roberts | | 2000 | 200 00 | Mch 25 | | 17 | 1700 | | 218 00 |
| " 31 | 140 | Miller Co. | | | 84 10 | " 31 | Miller & Co | | | 140 | 24 10 |
| | | | | | | " " | Smith & Sons | | | 140 | 12 00 |
| | | | | | | " " | Shrink | | 180 | 140 | 18 00 |
| | | | | | | | Inventory | | 120 | | 12 00 |
| | | | | 2000 | 284 10 | | | | 2000 | | 284 10 |
| Mch 31 | | Inventory | | 120 | 12 00 | | | | | | |

Each day's sales tickets are arranged in numerical order, noting that the first ticket is the next number following the last ticket of the previous day, and put up in a package with heavy cardboard for fronts and backs labeled, sales tickets, month, date, and year. When the tickets are printed have holes cut about half an inch from the bottom edge and one inch from each side, also the fronts and backs and in this way brass staples can be put through and clinched on the under side and filed away.

DAILY SALES AND SUMMARIZING RECORD.

The entire day's work is balanced on this form. Note on the left a column for entering the sales ticket for the day. The original charge having been made on No. 1 (sales ticket), enter the ticket in numerical order first ticket number and the total amount of the ticket opposite in the credit or cash column as the sale may be (consignment sales and credit sales being the same). After all tickets are entered add the cash and credit sales and carry totals over in the summary as shown on this form. The cash sales of the day must balance with this daily balance sheet and also the total proof posting sheet with the charge sales. I have shown on this balance sheet the five items on the sales ticket the same as five separate tickets.

After the tickets are entered we separate the merchandising sales so they can be credited to the different accounts as classified. Eggs are entered in one column and poultry in another and totaled cases, pounds, and amount. Carry the totals over in the summary and the grand total of these must equal the total of the cash and credit sales. Then post from the daily balance sheet, as a credit to the different merchandise accounts, the total sales of each class, posting the number of cases, pounds and the

amount. Any charge at all can be made on these sales tickets, such as express, freight, barrels, etc., and separated on this daily balance sheet and credited to the proper account. If no cost price is carried on consignment sales only enter in your sales column the ticket number, and in merchandise distribution the cases and weight, balancing the total cases and weight, balancing the total cases and weight and crediting merchandise in this way.

EGG AND POULTRY MERCHANDISE ACCOUNT.

This merchandise account does not differ from any other merchandise account. The merchandise having been purchased, a journal entry is made as shown in Form 5, and charged to the proper merchandise account, entering the weight as well as the money, the credits are derived from the daily sales and summarizing record. Take an inventory at any time and make

**CONSIGNMENT**

MILLER & COMPANY — Chicago Ill.

| Date | | Folio | Ticket # | Lot | Lbs. | Amount | | Date | | | Lbs. | Folio | Amount | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mch | 25 | | 1 | Roberts 10 | 1000 | 120 | 00 | Mch | 31 | Cash | 980 | 14 | 136 | 90 |
| | 31 | | 140 | Mdse. | | 24 | 10 | | - | Commission | | 140 | 7 | 20 |
| | | | | | 1000 | 144 | 10 | | | Shrink | 20 | | | |
| | | | | | | | | | | | 1000 | | 144 | 10 |

J.G. SMITH & SONS

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mch | 25 | | 1 | Roberts 7 | 700 | 98 | 00 | Mch | 31 | Cash | 700 | 14 | 104 | 50 |
| | - | | 1 | Smith 3 | 90 | 18 | 00 | | - | Commission | | 140 | 6 | 85 |
| | 31 | | 140 | Mdse | | 21 | 00 | | - | Cash | 90 | 14 | 25 | 65 |
| | | | | | 790 | 137 | 00 | | | | 790 | | 137 | 00 |

the proper entry to profit and loss and close the account as shown on Form 3. Charge shrinkage to expense in this account because it is a necessary cost in dressing.

MILLER AND COMPANY CONSIGNMENT ACCOUNT.

The debit to this account comes from the sales ticket. After the goods are consigned to the party and it has been sold and returns made, the check is credited to the account, then a journal entry is made charging commission account and crediting the party, thus showing a credit to the account of the gross consignment sales. To close this account make a journal entry for the difference between the cost amount charged and the gross amount received and credit or charge merchandise account.





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**JOURNAL**

| Amount | | | Led | Folio | Dr. | Cr | Led | Folio | | Amount | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Mch 21/07 | | | | | |
| 200 | 00 | ✓ | R | 14 | Poultry Mdse. | W Roberts | R | 100 | ✓ | 200 | 00 |
| | | | | | Mch. 16 2000 lbs Foul 10¢ | | | | | | |
| | | | | | | Mch 21/07 | | | | | |
| 15 | 00 | ✓ | R | 14 | Eggs Mdse. | R Smith | R | 140 | ✓ | 15 | 00 |
| | | | | | Mch. 20 100 Doz. Eggs 15¢ | | | | | | |
| | | | | | | Mch 31 | | | | | |
| 7 | 20 | | R | 20 | Commission | Miller & Co. | C | 16 | ✓ | 7 | 20 |
| | | | | | 3/31 5% 980 lbs $144.10 | | | | | | |
| | | | | | | Mch 31 | | | | | |
| 24 | 10 | ✓ | C | 16 | Miller & Co. | Poultry Mdse. | R | 14 | ✓ | 24 | 10 |
| | | | | | | Mch 31 | | | | | |
| 13 | 50 | | R | 14 | Egg Mdse. | Profit & Loss | R | 3 | | 97 | 60 |
| 84 | 10 | | R | 14 | Poultry " | | | | | | |
| | | | | | | Mch 31 | | | | | |
| 18 | 00 | | R | 40 | Expense | Poultry Mdse. | R | 14 | ✓ | 15 | 00 |
| | | | | | Shrink 180 lbs 10¢ | | | | | | |
| 6 | 85 | | R | 20 | Commission | J.G. Smith & Sons | C | 18 | ✓ | 6 | 85 |
| | | | | | 3/31 5% #1000 | 5% #27.00 | | | | | |
| 21 | 00 | ✓ | C | 16 | J.G. Smith & Sons | Egg Mdse | R | 14 | • | 9 | 00 |
| | | | | | | Poultry " | R | 14 | ✓ | 12 | 00 |
| 389 | 75 | | | | This form may be improved by providing separate departments columns | | | | | 389 | 75 |

CONSIGNMENT ACCOUNT SALES.

Have these blank forms and send one with every shipment of consigned goods. Instruct the party to whom goods are consigned to make returns on this form for each shipment of goods. Attach this blank to the duplicate ticket, this will enable the party to make the returns correctly; have them deduct the commission as shown on Form 6 and mail check with each account sale for the net amount.

DAILY REPORT PURCHASING AGENT.

An account is opened at the home office with the purchasing agent. charging his account with all moneys advanced to him.

Each day he is to report on Form 7 of all goods purchased. This daily report is used as a voucher for journal entry charging merchandise account and crediting the purchasing agent with merchandise bought for cash, and crediting the party from whom the goods are bought on credit. The purchasing agent should have a blank receipt in book form and with each cash purchase he should fill out a receipt and have the party to whom the money is paid sign it. This he should keep for his own record to check against his daily report.

**CONSIGNMENT**

## ACCOUNT SALES

**POULTRY AND EGGS**

**AMERICAN POULTRY CO., DETROIT. MICH.**

**RETURNS FROM** Miller and Company, Chicago Ill.

| Cases | | Lot | Pounds | Price | Amount | |
|---|---|---|---|---|---|---|
| 5 | Roberts | B | 490 | 14 | 68 | 60 |
| 2 | " | " | 195 | 15 | 29 | 25 |
| 2 | " | " | 200 | 16 | 32 | 00 |
| 1 | " | " | 95 | 15 | 14 | 25 |
| | | | 980 | | $144 | 10 |
| | Less 5% Commission | | | | 7 | 20 |
| | | | | | 136 | 90 |
| | J. G. SMITH & SONS | | | | | |
| 2 | Roberts | A | 200 | 15 | 30 | 00 |
| 5 | " | " | 500 | 16 | 80 | 00 |
| | | | 700 | | 110 | 00 |
| | Less 5% Commission | | | | 5 | 50 |
| | | | | | $104 | 50 |
| | J. G. SMITH & SONS | | | | | |
| 3 | Smith Eggs | A | 90 | 30 | 27 | 00 |
| | Less 5% Commission | | | | 1 | 35 |
| | | | | | $25 | 65 |

DAILY REPORT BRANCH HOUSE.

An account is opened at the home office with the branch house charging the branch with all moneys advanced.

The branch houses are to use the same system on merchandise purchased as the purchasing agent, except the merchandise purchased and sales reports are combined in one.

On Form 8, beginning at the left, is the report of merchandise purchased. We will consider that this has been handled the same as Form 7, we will now take the report on sales.

First, the branch house is to have the duplicate sales tickets the same as the home office, keeping the original for their records and sending the





**DAILY REPORT**

**PURCHASING AGENT**

| Bought of | | | | | | |
|---|---|---|---|---|---|---|
| Name | Address | Pounds | Cost | Credit | Cash | Remarks |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**DAILY REPORT**

**MONTH** **BRANCH HOUSE**

| Bought of | | | | | | Shipped | | | | Consignment | | | | Regular | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name | Address | Lbs. | Cost | Credit | Cash | Ticket | Name | Address | Lot | Cases | Lbs | Cost | Amt | Cases | Lbs. | Price | Credit | Cash |
| | | | | | | | | | | | | | | | | | | |

duplicate to the purchaser along with the merchandise, also sending Form 6 along with duplicate ticket to all parties to whom merchandise is consigned with instructions to make returns to the home office.

The branch must enter each sales ticket on this daily report, separating the sales according to this form.

If consigned, under the consignment column.

If sold at a fixed price for credit or cash, to be entered under regular sales.

Use a carbon and make a duplicate of this daily report and file along with the tickets, or use an indelible pencil and take tissue copy for a record. When this report is received at the home office first make a journal entry charging merchandise with the merchandise purchased the same as with Form 7 purchasing agent, then take sales ticket and make a charge to each party as shown on this report, charging the cash sales to the branch house as money advanced. These tickets are run through on Form 2, the same as though the sales were made from the home office, merchandise getting credit from Form 2. Do not send the duplicate ticket or Form 6 out on these charges as this has already been done by the branch house.—*(Elwood Hubbs.)*

## (431) COMMON STOCK.

See Stock.

## (432) COMPANY.

See Corporations.

## (433) COMPARATIVE STATEMENTS.

In a manufacturing business exhibit:

Details of Cost of Product.
Manufacturing Expense.
Indirect Expense.
Sales of Product.

**Comparative Statement of Revenue & Expenditures.**

| Trading Account. | Jany 31-04 | Feby 29-04 | Increase | Decrease |
|---|---|---|---|---|
| Inventory at beginning of month | 32500 | 35000 | 2500 | |
| Iron and Steel | 65250 | 99500 | 34250 | |
| Factory Supplies | 6600 | 8000 | 1400 | |
| Coal and Coke | 7900 | 9000 | 1100 | |
| In Freight and Cartage | 7500 | 8800 | 1300 | |
| Wages | 29500 | 37600 | 8100 | |
| Bags and Packing | 2500 | 3000 | 500 | |
| Factory Expense | 5200 | 6000 | 800 | |
| | 156950 | 206900 | 49950 | |
| Gross Profit | 13500 | 19100 | 5600 | |
| | 170450 | 226000 | 55550 | |
| Sales | 135450 | 190000 | 54550 | |
| Inventory at end of month | 35000 | 36000 | 1000 | |
| | 170450 | 226000 | 55550 | |

| Profit and Loss Account | Jany 31-04 | Feby 29-04 | Increase | Decrease |
|---|---|---|---|---|
| Salaries | 2000 | 3500 | 1500 | |
| Rent, Taxes and Insurance | 2300 | 2800 | 500 | |
| Maintenance of Blgs. | 2000 | 2000 | | |
| Machinery | 2500 | 2500 | | |
| | 8800 | 10800 | 2000 | |
| Net Profit | 4700 | 8300 | 3600 | |
| Gross Profit as above. | 13500 | 19100 | 5600 | |

**Comparative Statement of Assets & Liabilities.**

| Assets | Jany 31-04 | Feby 29-04 | Increase | Decrease |
|---|---|---|---|---|
| Cash in Bank | 1700 | 5700 | 4000 | |
| Accounts Receivable | 36000 | 35300 | | 700 |
| Inventory | 35000 | 36000 | 1000 | |
| Buildings | 50000 | 50000 | | |
| Plant and Machinery | 24500 | 25000 | 500 | |
| Loose Tools etc. | 10000 | 10000 | | |
| | 157200 | 162000 | 5500 | |
| | | | 700 | |
| | | | 4800 | |
| Liabilities. | | | | |
| Accounts Payable | 11300 | 10500 | | 800 |
| Bank Overdraft | 10000 | 12000 | 2000 | |
| Mortgage Loan | 30000 | 30000 | | |
| Reserve for Bad Debts | 1200 | 1200 | | |
| Capital Stock | 100000 | 100000 | | |
| Surplus | 4700 | 8300 | | |
| | 157200 | 162000 | 2000 | |
| | | | 800 | |
| | | | 1200 | |
| Net Increase of Assets | | 4800 | | |
| Net Increase of Liabilities | | 1200 | | |
| Net Increase of Surplus. | | 3600 | | |





Inventory.
Gross Profit.
General Expense.
Administrative Expense.
Net Profit.

In this way data may be obtained as to increase or decrease of any item and the causes therefor.

In a business dealing with manufactured products only, the comparative statement will exhibit the

Purchases.
Labor
Freight.
Amount of Sales.
Gross Profit.
General Expense.
Net Profit.

To Manager's Office
To Supt's Office

**COMPARATIVE COSTS**
**ASSEMBLING DEPARTMENTS**
**LABOR AND EXPENSE**

| Operation No. | Operation | January Quantity | January Labor Per 100 | January Expense Per 100 | February Quantity | February Labor Per 100 | February Expense Per 100 |
|---|---|---|---|---|---|---|---|
| 1 | Nuts, Screws, etc. in Fr. | 600 | 15 20 | 13 61 | 700 | 15 86 | 13 69 |
| 2 | Revolving Body. Assg. | 621 | 29 61 | 27 30 | 702 | 29 37 | 27 37 |
| 3 | Revolving Gears " | 596 | 120 65 | 110 22 | 696 | 121 20 | 111 30 |
| 4 | Assg Carriage Frame | 607 | 37 29 | 35 64 | 697 | 37 76 | 34 76 |
| 5 | " Revolving Arms | 600 | 93 37 | 87 36 | 703 | 93 96 | 86 76 |
| 6 | " Motors | 603 | 46 70 | 43 20 | 698 | 44 03 | 44 03 |

**COMPARATIVE FINANCIAL STATEMENT SHOWING PERCENTAGES ON TURNOVER**

| Names of Accounts | JAN. 1. 1900 Amount | JAN. 1. 1900 Percentage | JAN 1. 1901 Amount | JAN 1. 1901 Percentage | JAN. 1. 1902 Amount | JAN. 1. 1902 Percentage | JAN 1. 1903 Amount | JAN 1. 1903 Percentage |
|---|---|---|---|---|---|---|---|---|
| Gross Profit | 48 441 75 | 88 43% | | | | | | |
| Net Profit | 15 925 22 | 32 42 | | | | | | |
| Labor | 12 050 65 | 24 53 | | | | | | |
| Mnf'g Expense | 3 002 75 | 6 11 | | | | | | |
| Gen'l Expense | 16 200 — | 32 98 | | | | | | |
| Salaries | 9 700 — | 19. 75 | | | | | | |

| NAME OF JOB | COMPARATIVE COST RECOR. | | | | | | | | | DRAWINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHOP ORDER | | | DEPARTMENT COST | | | | | | | TOTAL COST | SHIPPING WEIGHT | COST | |
| DATE | No. | QTY. | PATTERNS | MACHINE SHOP | SMITHY SHOP | FOUNDRY | MATERIAL | GEN'L EXP. | | | | EACH | PER LB. |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | |

(434) **COMPARATIVE STATISTICS.**

The details necessary for the compilation of a comparative statement.

(435) **CONDITIONAL ENDORSEMENT** (Notes, Checks, Etc.)

An endorsement which specifies some condition which must be fulfilled prior to payment being made.

(436) **CONSIDERATION.**

The benefit to be derived by the party making a contract for the performance of some obligation. The following is a standard definition:

"Some right, interest, profit or benefit accruing to the one party or some forbearance, detriment, loss or responsibility given, suffered or undertaken by the other."

(437) **CONSIGNMENT.**

A shipment of goods on sale, i. e., to be sold on behalf of the owners at an agreed commission or remuneration, the party to whom the goods are consigned being liable to the consignor only for goods sold, the ownership of the goods unsold remaining in the consignor.

(438) **CONSIGNMENT ACCOUNT.**

The accounts of consignees of the goods received for sale on consignment should be carried in a separate consignment book, from which the account sales can be made to the consignor when required, showing amount of goods sold and commission gained on same. The value of goods sold only should be entered on the regular books of account as a liability to the consignor, thus avoiding complications.

The actual forms of consignment records and consignments ledger vary with different businesses, but the following method combines both





sales book and ledger and stock book features obtained on ordinary ledgers with double columns on each side. In the outer column on the credit side enter value of goods received on consignment and state quantities in the "particulars" column. As goods are sold enter same on the debit side, giving quantities, date, folio of sales book, and value in inner column. When account sales is made enter date and amount in outer column on debit side. On rendering account sales enter quantity of goods on hand in "particulars" column and value in inner column on credit side, which will thus be the balance of account at that date. This account will then always show:

Amount of sales,

Amount on hand,

Total value of consignment,

Amount accounted for to consignor.

Where the business is large a consignment account should be opened, not only with each consignor, but with each kind of goods consigned.

As stated above, the amount due consignor should be transferred to the main books of account as each account sales is rendered, thus entering on the books only the actual liabilities, the debit being to purchases, the sales of goods to customers being charged in the usual way, crediting sales account.

In large consignment or commission businesses, the use of columnar sales books will be found of great advantage, one column being provided for charges to customers, and separate columns for the distribution of the different kinds of goods purchased, separate trading accounts being kept with each class of goods. Those trading accounts will include both sales and purchases, being debited with the value of goods sold, and credited with the amounts charged to customers. In this way each trading account will exhibit the profit made on each kind of goods carried on consignment. All charges and expense connected with the consignment are also charged to the trading account so that it may exhibit net proceeds. When account sales are rendered commission account will be credited with the commission earned, which will be charged to the consignors.

Where the consignment business is carried on in connection with a regular mercantile business, it is useful to provide a separate column in the sales book for consignment sales, thus distinguishing them from regular sales.

(439) **CONSIGNEE.**

One to whom a consignment is made.

(440) **CONSIGNOR.**

One who ships goods on consignment for sale. Sometimes applied to regular shippers.

### (441) CONSOLIDATIONS.

See Amalgamations—Par. ....

### (442) CONSTRUCTION ACCOUNT—CONSTRUCTION AND EQUIPMENT ACOUNT.

An account, or series of accounts, carrying the cost of erecting and equipping.

See Account, and Classification of Accounts.

### (443) CONTINGENT ASSETS OR LIABILITIES.

A possible source of value or liability dependent on the fulfillment of certain conditions.

Bills discounted are liabilities contingent on their being paid by the acceptors when due. Some accountants incorporate contingent assets and liabilities in the balance sheet by providing special columns for same.

### (444) CONTINGENT FUND.

A fund set aside to cover anticipated expenses. In municipalities a fund frequently established to defray expenses not included in public estimates or legally authorized.

### (445) CONTRA.

Against. A buying account with a customer. A selling account with a creditor.

### (446) CONTRACT.

An agreement enforceable at law, made between two or more persons, which rights are required by one or both to act, or forbearance on the part of the other or others.

### (447) CONTRACTS UNFINISHED.

In most factories where goods are manufactured for the general trade it is customary to include the cost of work in progress, with a proper proportion of factory expense added as an asset, and it is considered entirely incorrect to attempt to add any proportion of profit, although the articles may be in process of manufacture by special order or contract.

When profits are added either to work in progress or to completed goods not yet sold, the inventory is being taken at selling price, and consequently income is being inflated with profits unearned.

It should always be borne in mind that the annual financial statement should make an accurate presentment of the condition of the business, and that any speculative or unjustifiable inflation of income, by the inclusion of over-estimated, anticipated or prospective profits, will but react upon the showing of the business for the following year, and throw discredit upon the judgment of the person responsible for the inaccurate statement of the previous year.





### (448) CONTRACTORS' ACCOUNTS.

General principles to be followed.

The Contract accounts should, as far as possible, be treated the same as factory accounts in a manufacturing business. In the first place all material purchased and labor performed should be debited to separate material and labor accounts. Material and time cards will be issued to the foreman in charge of the jobs. When the job is completed the customer is debited with the amount to be charged, and Contract Sales account credited. This Contract Sales account represents the same purpose as the ordinary Sales account of a commercial business.

COMBINATION COST JOURNAL & ESTIMATE BOOK

| ORDER NO. | DATE | NO ARTICLES | DESCRIPTION | COSTS | | | | | PRICE TO CUSTOMER | PROFIT | LOSS | ESTIMATES | | | | | PRICE TO CUSTOMER | ESTIMATED PROFIT | ESTIMATED LOSS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MATERIALS | LABOR | DIRECT EXPENSE | INDIRECT EXPENSE | TOTAL | | | | BY WHOM | MATERIAL | LABOR | DIRECT EXPENSE | INDIRECT EXPENSE | TOTAL | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | |

In a business of this kind, it is frequently desirable to make shop orders in duplicate, the duplicate being of some stout material which is given to the foreman having the work in charge. The time occupied and material used on the contract should be recorded on the back of the shop order. When the contract is completed, the shop order is turned into the office, and the totals of material and time transferred to the original shop order on which the percentage of indirect expense is added.

A completed contract summary is a very useful provision, as, if properly arranged, it will furnish the amounts to be credited to material, supplies, labor and expense accounts at the end of each period. When such a record is

CONTRACT COST SUMMARY

| CONTRACT NO. | MATERIAL | LABOR | DIFFUSED EXPENSE | | TOTAL COST | ESTIMATED COST |
|---|---|---|---|---|---|---|
| | | | DIRECT | GENERAL | | |
| 2056 | $ 8567 | $ 4183 | $ 17 30 | $ 14 28 | | 3927 |
| 7 | 18300 | 9150 | 3784 | 3123 | | 8590 |
| 8 | 20000 | 10000 | 4135 | 3414 | | 9387 |
| 9 | 1250 | 625 | 259 | 213 | | 587 |
| 60 | 8550 | 4275 | 1768 | 1459 | | 4018 |
| 1 | 642 67 | 32133 | 13287 | 10969 | | 30164 |

DAILY REPORT OF WORK

JOB No. ——— CARD No. 952 2

NAME OF WORK | DATE

CHARGE TO | STREET OR LOCATION

| HOURS LABOR | | MATERIAL AND REMARKS |
|---|---|---|
| " " | | |
| " " | | |
| " " | | |
| HOURS TEAMING | | |
| EXTRA WAGON | | |
| | | |
| | | |
| | | |
| | | |
| | | FOREMAN |

maintained it is not necessary to carry individual accounts with each contract in the ledger. All ordinary small contracts may be carried in one account. It would, however, always be advisable to carry accounts with large contracts. See illustration.

Where extras are found necessary and have to be charged in addition to the contract price, it is very desirable to open a separate account for same, contiguous to the Contract account, as considerable confusion is liable to result from mixing charges for extras with regular contract charges.

In some manufacturing businesses a part of the accounting system is to have estimate blanks made in duplicate so arranged that when the estimate is accepted it may constitute the order for the work. This involves the making of a sufficient number of copies of the estimate if the duplicate is not sufficient.

### (449) CONTROLLING ACCOUNT.

See account.

### (450) CONVEYANCE.

The transfer of the title of land from one person, or class of persons, to another. The instrument for effecting such transfer.

### (451) CO-PARTNERSHIP.

An association of two or more persons in business governed by a partnership agreement and not by articles of incorporation.





### (452) CO-PARTNERSHIP ACCOUNTING.

See partnership.

### (453) COPYRIGHT.

The exclusive privilege, secured according to certain legal forms, of printing or otherwise, multiplying, publishing, and vending copies of certain literary or artistic productions.

### (454) COPYRIGHT ACCOUNT.

The treatment of copyrights on books of account is an important part of the detail of a publisher's business, and is very similar in principle to the treatment of good will, especially when a lump sum has been paid for the copyright. A copyright expires in accordance with law within a specified period, and while the value of the book or publication as a selling article may continually increase during the life of the copyright, it is the wisest course to gradually write off the copyright account, so that at the expiration of the copyright the extinguishment of the asset will not fall entirely upon one year's profits.

It often happens that on account of the popularity of a book the copyright actually appreciates during its life, but unless for purposes of sale no real benefit accrues from increasing the value of the asset on the books of the business. An authority on the subject states:

"It should be mentioned that there are items on the books of a private firm or joint-stock company to which no general rule of writing off is applicable. Such are the cost of good-will, patents, trade marks, copyright designs, etc.; for although, as in the case of patents, the life of the asset is clearly defined, the incidental advantages derived from the possession, for a term of years, of a valuable monopoly do not necessarily cease upon the expiration of the term of the patent. On the contrary, the value of the good-will may increase although the term of the patent is expiring. Assets such as those should be considered as having a combination value differing altogether from their value per se. The obvious rule, therefore, is that in the balance-sheet such assets should appear at their cost value, and need not be written down unless their realizable value as integral parts of a going concern falls below their cost value."

### (455) CORPORATION NOMENCLATURE.

There are various kinds of corporations which have been distinguished as follows:

Aggregate Corporations are those which are comopsed of two or more members at the same time.

Corporations Charitable are those organized for charitable or benevolent purposes, such as associations for the aid of reformed criminals, or for the aid of the blind, hospitals, etc. These corporations are also termed

Eleemosynary Corporations, as they relate to charity or the distribution of alms.

Civil Corporations are those which are created to facilitate the transaction of business.

Corporations Domestic are those transacting business within the limits of the State in which incorporated.

Double Liability Corporations are those whose stockholders are liable for twice the amount of their stock subscriptions. The United States National Banks are double liability corporations, the double liability being in the nature of a safeguard to the depositors.

Ecclesiastical Corporations are those which are created to secure the public worship of God.

Eleemosynary Corporations are those which are created for the purposes of charities, such as schools, hospitals, and the like.

Corporations Foreign are those transacting business in one State but incorporated under the laws of another.

Lay Corporations are those which exist for secular purposes.

Limited Liability Corporations are those in which the stockholders are liable only for the amount of stock subscribed for.

Municipal Corporations are those created for the purpose of administering some portion of the government in a political subdivision of the State, as a city, county, etc.

Corporations Private are those formed by voluntary association for the transaction of any lawful business, such as industrial or manufacturing corporations, banks, insurance companies.

Corporations Public are those organized for purposes of local government.

Counties, Cities and Towns are defined by some as public corporations, and by others as quasi corporations.

Corporations Sole consist of a single individual possessing corporate powers. There are no such corporations in the United States, but the Bishops of the Established Church of England each constitute a sole corporation, in order to establish a direct succession from one holder to another without the intervention in any way of executors or administrators.

## (456) CORPORATION, THE

The corporation is an association of individuals authorized by law to act as a whole under a corporate name for some particular purpose or purposes. It has been defined as an artificial person. Chief Justice Marshall's famous definition styled it "an artificial being, invisible, intangible, and existing only in contemplation of the law." Corporations are of many kinds, designated according to their objects, as social, financial, business, manufacturing, municipal, transportation, religious, charitable, educational and the like. Corporations may be divided into two general classess,—(1) membership corporations and (2) stock corporations.





Membership corporations are the original form and include churches, colleges, municipalities, stock exchanges, mutual insurance companies, and all incorporated associations for other than business purposes. In a membership corporation, when corporate action is taken, each member has but one vote without regard to the amount of his financial interest, if any, in the corporation. Curious questions sometimes arise as to the rights and interests of members of such corporations, but the subject is not of sufficient general interest to justify its discussion here.

Stock corporations are those in which the authorized capital, known as the "capital stock," is divided into shares, usually equal, and these shares, designated as "stock," represent the respective interests of the owners or stockholders in the corporation. The owners of stock are entitled to vote at corporate meetings and to participate in proportion to their interests in any corporate profits and in the assets of the corporation on its dissolution. The word "company" is commonly used as a synonym for "corporation." At the present day, all of the largest business enterprises are conducted as stock corporations.

Stock corporations may be divided into three general classes,—

1. Corporations for general purposes, such as mining, manufacturing and trading.
2. Corporations formed to carry on banking, insurance and the like, which are termed "financial" corporations.
3. Corporations for public services, such as railroad, telegraph, telephone, ferry and other like companies, which are called "public utilities" corporations and usually exercise the right of eminent domain.

Financial corporations and public utilities corporations are usually subject to much stricter legal supervision than the ordinary business corporation, but they enjoy certain special privileges.

A joint stock company is not a corporation but is a partnership in which the partners' shares are represented by stock certificates. In other respects it is a partnership and not a corporation and the members are liable as partners.

The amount of the authorized capital stock of a corporation and the face or par value of its shares are fixed by the charter of the company. Save where limited by the laws of the particular state, shares of stock may have any par value. One hundred dollars is the most common and most convenient value. The real value of shares, which may be many times more or much less than the par value of the stock, depends usually upon the value of the corporate property or franchise, and the rate of dividends. At times other considerations affect the value.

It is to be noted that theoretically the capital stock of a corporation and its actual capital are equal at the time of issue, bu later may and usually do differ grealy in amount. For instance, the capital stock of the Chemical

Bank of New York is but $300,000 while its actual capital is over $7,500,000. Where stock is sold on the general market, the quoted price is an index to the prosperity and dividend-paying power of the corporation, though into the quoted value many other factors may enter. Steel Common is less than par and Standard Oil is far above par. There are practical reasons for both these conditions.

The interest of any stockholder in a corporation is measured by the amount of stock he owns in it. One person may own any amount of stock in a corporation, even to the entire capital stock? For convenience, the shares of stock of a corporation are represented by "transferable" stock certificates, which are issued to the subscribers or purchasers to evidence their ownership of stock acquired. Such stock certificates are, as a matter of convenience, commonly referred to as "stock." They are not really stock but are only evidences of the ownership of stock as a deed is evidence of land ownership but is not the land itself.

Issued stock is stock for which subscriptions have been accepted or which have been exchanged for property. Unissued stock is a nullity until issued. It is merely the right to issue stock. A corporation may have the right to issue stock to the amount of $100,000 and may issue but $50,000. Then the unissued stock is merely excess capitalization, representing nothing unless issued.

If the corporation has received the full face value for issued stock, such stock is full-paid. If it has not received its full face value, the stock is not full-paid, and the purchaser of such stock may be held liable for the amount necessary to render his stock full-paid. Often on the organization of a corporation it will take over a mine, a patent, a factory, or established business and issue the entire authorized stock for the property, thus theoretically receiving payment in full for all the stock. The stock certificates are then marked "Full-paid and Non-assessable," and where the transaction has been conducted in good faith, such stock is held full-paid by the courts, and subsequent purchasers are not liable further. Frequently, however, promoters issue the stock of a company for a manifestly inadequate consideration, whereby the whole transaction becomes tainted with fraud. In such case the stockholders may be held liable for the difference between the value of the property received and the face value of the stock issued. Any stock issued as full-paid for which the corporation has not received full payment in cash, services or property, is termed "watered" stock. Stock is said to be more or less watered according to the difference between the face value and the real value represented by it.

The common stock of a corporation is the general or ordinary stock, having neither special privileges nor restrictions. If any portion of the stock is given special privileges or is restricted in any way, that portion is thereby removed from the class of common stock and only the remainder is common stock. This makes the stock a classified stock. Any statements





made concerning stock are usually understood to apply to common stock unless otherwise specified.

Preferred stock is that which has some preference as to dividends or assets or both, over other stock of the same corporation. This preference is usually secured by special provision in the charter, although in some cases it may be done by by-law provision. The usual preferred stock receives, say six, seven or eight per cent. from the profits before any dividends are paid to the common stock. If preferred stock is cumulative, its preferred annual dividend, if unpaid in any year, becomes a permanent charge on the profits of the corporation until satisfied. If a seven per cent. cumulative preferred stock were unpaid for five years, the preferred stock would have to receive thirty-five per cent. of dividends before the common stock would receive anything. Preferred stock is usually restricted to its named "preference," i. e., a seven per cent. stock would receive seven per cent. of the profits for each year, and then, if the further profits for the year amount to ten, fifteen or twenty per cent., this would belong to the common stock, the preferred stock having no claim upon it.

Dividends must be paid from profits alone. If there are no profits, neither preferred nor common stock receives dividends. To pay dividends out of the capital instead of from profits, is in most states a crime. In all states it would be held fraudulent and would make the parties responsible therefor liable for all moneys so paid out.

A corporation is a creation of the law. A partnership is formed by contract between two or more parties and is governed by the stipulations of the articles. A corporation cannot be formed save as authorized by law or special legislative enactment. In former days application was made direct to a state legislature when a charter was desired. Usually such charters conferred some franchise or special privilege, as the right to erect a toll bridge, establish a bank, construct a railroad or build a dam.

The abuses resulting from this method of granting charters have resulted in the prohibition of special charters in most states. Instead, general laws have been provided, under which corporations for any legitimate purpose may be formed by any qualified persons by compliance with prescribed formalities and the payment of certain fixed fees.

The form of application for a charter under these general laws is usually a copy of the charter desired, or in other words, the charter application itself, when allowed, becomes the charter. The parties applying for a charter must be natural persons of full age. Ordinarily one or more of them must be citizens of the state in which the application is filed. Minors, firms or corporations, or persons not able to contract, are not competent parties to form a corporation, though they may usually hold stock after the corporation is formed. The minimum number of incorporators required in most states is three and each is ordinarily required to subscribe for one or more shares of stock.

Almost any name may be taken as the corporate name, if it is not like or nearly like that of some corporation already rightfully doing business in the particular state. In some states all corporate names must begin with "The" and end with "Company." In many states firms may be incorporated under the partnership name without any change.

The purposes for which the corporation is to be formed must be set forth in the application and must be such as are permitted by the laws of the particular state. These purposes are usually set forth at great length and elaboration. A corporation has no legal right to do any business not permitted by its charter. The insertion of illegal purposes is ground for the rejection of the charter application. When corporations were first formed, they were confined to one specified purpose, and in some states today the same restriction exists. In those states which have modern and liberal corporation laws, great latitude is allowed in stating the business purposes of a corporation, and then the corporation has power of itself to do all things incidental to these specified purposes. In addition, corporations are in some states specially incorporated with power to hold the stock of other corporations, by means of which the great industrial combinations have been rendered possible.

The capital stock of the proposed corporation must be specified in the application and may be changed thereafter only by amendment of the charter. Also the par value of the shares of stock must be fixed at the same time, and if the stock is to be classified, i. e. divided into preferred and common, it must be done in the application.

The corporation must have a principal office in the state in which it is incorporated, and the location of this office must be specified in the application for its charter. In the state of its incorporation the company is a "domestic" corporation; elsewhere it is a "foreign" corporation.

The duration of the corporation is fixed in the charter. In many states it may be unlimited or perpetual.

The number of directors of the corporation must in most states be specified in the charter application. It is usually an odd number for convenience. In some states the directors for the first year are named in the charter application.

The application having been made out in due form, is then acknowledged by the incorporators before some officer authorized to take acknowledgment to deeds, and it is then ready for filing. Under the general procedure, the application accompanied by the proper fees, is sent to the office of the Secretary of State and a copy is filed with the county clerk of the county in which the proposed corporation is to have its principal office. Each state has its own minor variations of procedure which will be found in its statute law. In some states the application must be approved by the judge of a specified court before it will be filed. The fees also vary widely. They are usually proportionate to the amount of authorized capital.





After the charter has been filed, the stockholders hold their first meeting and adopt by-laws and, if the directors have not been named in the certificate of incorporation, they are elected at this first meeting. Thereafter the stockholders meet annually and elect directors for the ensuing year.

After the stockholders have met, the board of directors holds its first meeting and elects officers of the corporation. The necessary officers of a corporation are the president, the treasurer and the secretary. In small corporations these two last offices are often filled by one person. In the larger corporations vice-presidents and assistant treasurers and secretaries are elected. The directors are sometimes and not improperly referred to as "officers" of the company.

By-laws are the permanent rules of corporate action, as distinguished from motions and resolutions passed by the directors. As has been stated, by-laws are enacted by the stockholders, who alone have power to make and amend by-laws, unless by statute, by charter provision or by action of the stockholders themselves, such authority is delegated to the directors. By-laws usually regulate the issue and transfer of stock; the holding of regular and special meetings of the stockholders and directors; define the duties of directors and officers of the corporation, and may limit their usual powers.

Thus a corporation is controlled (1) by the corporation laws of the state in which it is incorporated or may be doing business, (2) by the provisions of its charter and (3) by its by-laws. These three rank in the order in which they are given; hence by-laws must conform to both the statute law and the charter of the particular corporation, and where not in accord with these higher authorities, would be void.

The board of directors has the actual management and control of the property and business of the corporation. Its authority may be limited by the charter and by-laws, but otherwise its action is conclusive, and it directs the business, disposes of the property, instructs the officers and meets each business situation as it comes up. Certain routine duties of the officers are usually set out in the by-laws.

The board of directors will further prescribe particular duties and give special powers to the different officers by motions and resolutions. Also, certain duties fall to certain officers by usage without any formal authorization. Agents, salesmen and other employees will be employed as needed, under the officers appointed directly by the board.

The directors can only act as a board, in meeting duly assembled. An individual director has no authority, unless the board has empowered him as its agent. Usually directors meet regularly once a month. If matters come up between meetings that demand immediate attention, a special meeting is called to meet the emergency. Special meetings must be carefully called; each member must be duly notified and the time, place and object of the meeting must be specified both in the call and notice. No other business can be transacted than that specified in the call and notice. The by-laws should prescribe the details of calling and notifying special meetings. Owing

to the difficulty of calling such board meetings where the board is large and scattered, it is customary under such circumstances for the board to delegate its authority in the interim between meetings to a standing committee or to standing committees, composed of members of the board. Where there is but one standing committee, it is called the executive committee; where an additional committee is added, it is given charge of the corporate finances and is called the finance committee. The charter may provide for standing committees or they may be prescribed in the by-laws.

An individual or firm doing business may do anything that is not forbidden by the law; but a corporation may legally do only those things that are expressly authorized by its charter. All other things are beyond its power, or in legal parlance are **ultra vires.** Contracts involving matters **ultra vires** cannot be enforced by the corporation, though other parties to such contracts may, if they have done their part, enforce them against the corporation. Such comprehensive purposes and such broad powers are now allowable and so commonly claimed in modern charters that the doctrine of **ultra vires** has not the importance it once had. Large corporations have such broad charters that it would be difficult to find anything their charters do not authorize, and smaller corporations, particularly "close corporations," i. e. where all the stock is owned by two or three persons, are allowed such a laxness of operation, that they have practically all the freedom of action that is enjoyed by a partnership.

The great advantages of the corporate form and the reason for its adoption by all important enterprises at the present day are as follows:

(1) **It limits the liability** of those engaging in the business. A subscriber to the stock of a corporation must pay the par value of his stock but after that, if the company becomes insolvent, he is not liable for any more. He may lose his investment but he risks only that. This is the great advantage of corporate investment. In a partnership each partner, no matter how small his interest, is liable for every debt of his firm, and its failure may take all of his property.

(2) **The legal entity** of a corporation or its distinct legal existence under its corporate name, is of great advantage. It can sue and be sued in the corporate name without its stockholders joining or being joined, while in a partnership every partner must be named. Also it may contract with its stockholders and bring suit against them or be sued by them. A partnership cannot contract with its members and cannot bring suit against them.

(3) **It is permanent.** By means of the corporate system of stock divided into transferable shares, the members of a corporation may continually change, while the company remains unaffected. In a partnership, on the contrary, any disagreement, the bankruptcy or death of a partner requires at least the reorganization of the partnership. Neither contingency would affect a corporation, which goes on indefinitely unless it is voluntarily dissolved, becomes bankrupt or reaches the period of existence fixed by its charter.





(4) **The convenience of stock.** The transferable certificates which represent the investment of a stockholder can be sold, used as collateral, or divided by will. In a partnership, a partner cannot sell his interest without breaking up the firm and it is impossible to use it as collateral. It is hard to exaggerate the great business advantage of having corporate stock represented by negotiable certificates.

(5) **The business management of a corporation** by a board of directors elected by the stockholders is a practical system and very satisfactory. The directors at regular meetings and, in event of any special business, at special meetings, consult and plan as to the proper course of the corporation. They elect permanent officers to carry out their behests and have wide powers as to the appointment of other agents to carry out their plans.

(6) **The ease of securing capital** by reason of the advantages recited,—which is the great inducement to incorporate all large enterprises. It is possible to get many people to invest in the stock of a corporation, who would be afraid to risk investment in a partnership. A mine, a railroad, or an invention, can frequently secure capital under the corporate form when otherwise it would be impossible.

Corporation law and practice are treated in many text books. In each of the larger states the statute law alone makes a fair volume, while the decisions on this subject would make a library. A business man can inform himself fairly by having a copy of Commercial Law Simplified, B. M. P. Co., containing the corporation laws of his own state.—(Thos. Conyington.)

## (457) A FEW CORPORATION POINTERS.

One of the principal advantages of the corporate business organization is its provision for limited liability.

A partner who does not actively engage in the business in which he is financially interested is, nevertheless, responsible for the acts of the managing or active partners, and jointly responsible for the liabilities incurred on behalf of the partnership; consequently, many business men who assist others in establishing business enterprises find it very convenient to limit their responsibilities by shielding themselves with the corporation cloak.

### FROM PARTNERSHIP TO CORPORATION.

The author of a commercial text book quotes an example of this kind which he terms "A legerdemain performance" from the fact that a barely solvent partnership was transferred into a corporation with a paid-up capital of $10,000, without involving the investment of any additional capital or the transfer of actual cash, while the capitalist exchanged his position of unrestricted liability for the acts of another, to a liability simply for the amount of his original investment.

How was this done?

A capitalist subscribed for $5,000 of stock. The managing partner subscribed for an equal amount, giving his note for same to the capitalist with the stock attached as collateral security.

As the assets and liabilities were about equal the partnership offered the assets to the corporation for the nominal sum of $1, in consideration of the latter assuming the liabilities. The capitalist then drew his personal check for $10,000 in favor of the corporation for the stock subscribed. The corporation drew its check for $10,000 to cancel the partnership note, which was one of the liabilities assumed. The capitalist signed another note which was placed to the credit of the corporation to be used for working capital.

### WHAT OUTSIDE INVESTORS GET.

The details of incorporation, particularly when outsiders are permitted to subscribe for stock in an old established business and are as interesting as they are various. Thus—we read that the great catalog house—Sears, Roebuck & Co.—have incorporated for $40,000,900—$10,000,000 preferred and $30,000,000 common, the promotors taking the whole of the preferred and about $10,000,000 of the common in order to possess the controlling interest. The preferred stock will receive seven per cent dividends, which is good enough in these days of three and four per cent savings banks.

### INFORMATION DESIRED.

Generally speaking, there seems to be a greater desire for information in regard to the procedure of mining companies in connection with their stock, and the transfer from partnerships to corporations, than along any other allied line.

Recently we received an account of a book-keeper who attempted to make a profit out of Unsubscribed Treasury Stock account, and this indicates that a perfect understanding of the subject is not universal.

The treatment of donations of stock to a corporation by the owners thereof is responsible for many inquiries, and the redemption of bonds within a stipulated period is surrounded by doubt.

### THE MODUS OPERANDI OF TRANSFERS.

In transferring the interests from a partnership to a corporation, it used to be considered the simpler and better plan to pass a check in purchase of the business by the corporation, and in purchase of the corporation stock by the subscribers. Some authorities, however, now consider this useless detail and, no doubt, this is true so far as the legal aspect of the case is concerned. However, it makes a clear record on the books.

Thus—a corporation is organized with a capital stock of $100,000. It is proposed to take over the business of Jones & Brown, which is offered at a price equivalent to the value of the net assets. Jones and Brown subscribe for $48,000 each, and a third person subscribes for the balance of $4,000. Jones & Brown hand their check to the new corporation for $96,000 in purchase of the stock, and the corporation hands Jones & Brown its check in payment for the net assets, same being properly recited in a bill of sale.





The assets, as above indicated, can be transferred without the passing of checks, and the transfer will be equally legal.

### PAYING FOR STOCK OUT OF DIVIDENDS.

The remaining $4,000 of stock is subscribed for by Smith, the factory superintendent. He is to pay for same out of dividends earned by the stock. Smith's promissory note is taken in payment for the stock and Accounts Receivable debited; or, if the stock is to be donated in acknowledgment for services rendered, debit promotion or incorporation expense, or some similar account.

### SALE OF STOCK AT A DISCOUNT.

A mining corporation that sells stock at a discount of 75 per cent is not compelled either to make good, or to pretend to make good, this discount out of the profits—the profits are earned by the actual capital invested and should be distributed accordingly. (Most mining corporations have quite enough to do to provide a reserve against depreciation, or wasting of the mine, so as to prevent impairment of the capital actually invested.) The value of unsubscribed treasury stock is nil and is offset by equally fictitious capital on the liability side. There is no law requiring the entry of authorized capital on the regular books of account whether disposed of or not, and the most reasonable plan, and best accounting practice, is to include in the regular books only that stock that has actually been subscribed.

### REAL TREASURY STOCK.

This recommendation does not relate to stock in the treasury purchased by a corporation from the original holders—such stock is usually an asset to the amount of the price paid for it. Sometimes stockholders donate to a corporation stock they have purchased and paid for with a view to increasing the working capital of the business. This stock, also, can be carried in Treasury Stock account until resold. The credit may be made to Working Capital account.

### ISSUE AND SALE OF BONDS.

A very common method of providing a sufficient working capital for development and other purposes is the issue and sale of bonds. The redemption of these bonds is usually provided for by the establishment of a sinking, reserve or redemption fund, this consisting of sums set aside, or invested periodically, sufficient, together with interest earned on same, to pay the bonds as they mature.

### ESTABLISHMENT OF SINKING FUND.

In order to establish a sinking fund it is necessary first—to set aside a sum sufficient for the purpose from the profits. The procedure on the books of account is a transfer from the Profit and Loss, or Surplus account, to a Reserve account, after which the necessary amount is invested and debited to Sinking, or Redemption Fund account. After the bonds have been redeemed the Reserve account should be closed by a re-transfer to Profit and Loss as the amount involved represents profits on hand in the business,

while the sinking fund represents the cash received from the purchasers of the bonds, same being included in the liabilities, i. e., the money thus obtained was debited to cash after which it was gradually withdrawn from cash and placed in the sinking fund.

The transfer from Profit and Loss, or Surplus, to the Reserve account is merely for the purpose of demonstrating that this amount of profits earned is not available for present distribution.

IS STOCK SOLD AT A DISCOUNT "FULL PAID?"

There is considerable discussion as to the legal status of stock sold at a discount, judging from the inquiries constantly received by us. Can stock sold at 50 per cent discount be guaranteed by the selling corporation as "full paid and non-assessable "

In some states the corporation laws expressly provide that purchasers of stock must pay the par value or be liable to an assessment for the balance. Where stock is purchased, however, at a certain price below par and the stock has printed on it the words "full paid and non-assessable" the innocent purchaser will not be held liable for the difference between the purchase and nominal prices.

It would appear to be equity that if a purchaser buys stock at the price set upon it, whether par or below par, he has paid the full price asked and should, therefore, be entitled to consider the stock as full paid, and where the words "full paid and non-assessable" are printed on the stock certificate it should be considered as an agreement entered into between the purchaser of the one part, and the corporation of the other, that he should be relieved from all further liability in respect of the stock purchased. Evidently, however, the question must be considered separately, according to the particular corporation laws of the state in which the question may arise.

THE SUPPRESSION OF THE MINORITY STOCKHOLDERS.

One of the principal objections to the modern corporation appears to be the powerlessness of the minority and the growing disregard of any rights the minority is supposed to possess.

When an alien presumes to criticize the free and glorious institutions of this great country he is promptly invited to return to the place from whence he came; and, in like manner, when the minority stockholder attempts to criticize the management of a corporation, or to voice his disapprobation of the managerial policy, he is promptly invited to sell his stock and get out.

None of the standard text books on corporation management, etc., appear to be able to suggest how this condition may be improved, with the exception that a public accountant's periodical audit will furnish the information that might be obtained by that personal inspection of the books by a minority stockholder which the majority stockholders will not permit. The enactment of a law, making such audits compulsory, would, undoubtedly,





have a most beneficial effect, not only in protecting minority stockholders generally, but in preventing the manipulation of the books of account for unlawful or inequitable purposes.

CAPITALIZATION BASED ON FUTURE EARNINGS.

Where the capitalization of a corporation is based on the prospective earnings of the business it is usual for the stock to be divided into preferred and common, the preferred stock being covered by the actual assets of the corporation, and the common stock being held by the promotors of the enterprise, a provision being included in the articles of association debarring the holders of preferred stock from voting at any meeting of stockholders, or for the election of directors, unless there has been default in paying the dividends, on the preferred stock. This is an excellent plan for keeping the minority, or outside stockholders, in their proper places.

Many excuses are made in reference to capitalization on the basis of estimated earnings, but in not a few cases it is sufficient to say that the intention of excessive capitalization is to milk the public to the extent of the amount paid for the stock, whether preferred or common; dividends being kindly permitted to look after themselves on both preferred and common.

## (458) CORRESPONDENCE—FILING OF.

The least practical method is the combination of the card index and of the numerical folder. No one can file cards or numbered folders all day long without making errors, and when a card or folder is filed wrong it means hours of search.

The Vertical filing cabinet is, without a shadow of doubt, the best for practical use.

A good system is as follows: For each document is provided an envelope with the Form 1 shown in the illustration printed upon the front.

The documents, each in its envelope, are filed in numerical order in a filing cabinet or drawer similar to those used by banks for filing checks. A single drawer will hold several hundred envelopes.

When a contract has been made, or a paper of value received, it is turned over to the man in charge of the document files, who makes out an envelope with the next highest number not yet used in his file.

For the purpose of indexing the document drawers two forms of 3 x 5-inch cards are used, one being printed especially for that purpose, and the other with the regular standard ruling. These cards are indexed by guides classifying the different kinds of documents—a guide card for contracts, one for deeds, one for insurance policies, one for miscellaneous, and so on. The cards representing each particular kind of documents can be further indexed by the use of alphabetical guides, should the number of papers of any one kind warrant.

SOUTHEAST MISSOURI TELEPHONE CO. GENERAL FILES

ENCLOSURE: FIRE INSURANCE POLICY ON PROPERTY (SWITCHBOARD & MATERIALS) AT CHARLESTON, MO $5000/00

EXPIRES JULY 1ST 1908

ENVELOPE NO 362

| RECEIVED THE ABOVE PAPERS | | RET'D | RECEIVED THE ABOVE PAPERS | | RET'D |
|---|---|---|---|---|---|
| 7/13 190 7 | JNO JONES | 7/20 | 190 | | |
| 8/10 190 7 | WM. SMITH | 8/11 | 190 | | |
| 190 | | | 190 | | |
| 190 | | | 190 | | |
| 190 | | | 190 | | |
| 190 | | | 190 | | |

One card (Form 2) is used for each document, and is numbered the same as the paper and its envelope. This suffices for the finding of a paper —a contract, for instance, when the name of the contracting party is known. To provide for easy access to any paper when this knowledge cannot be had, a card (Form 3) with the standard ruling is used to represent each class of papers; all papers of a certain kind in the files are listed upon this one card. If necessary, two or more cards are used to hold the list of one kind of documents, in which case the cards are numbered serially. Thus a ready cross index is given to every paper in the file, and as the special cards are white, and the others are buff, they are not likely to be confused.

While the documents themselves are kept under lock and key, the card index is accessible to any employe having need of it, and the time of the keeper of the documents can be saved by making it a rule that any person desiring a certain paper first find the proper card in the index and then call for the document by its number. When a paper is given out, the envelope is signed upon the front by the person receiving it, the date is marked upon the envelope, and it is then placed, empty, back into its proper position in the file. Should the same paper be wanted by another person before it has been returned to the file, the envelope will of course tell who has the paper at the time.

JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

SOUTHEAST MISSOURI TELEPHONE CO.

DOCUMENT FIRE INSURANCE POLICY
ON SWITCHBOARD & MATERIALS AT
CHARLESTON, MO.
$5000/00

EXPIRES JULY 1ST 1908 NO. 362





INSURANCE POLICIES (FIRE) CARD #3

| ON PROPERTY AT | AMOUNT | EXPIRES | NO. |
|---|---|---|---|
| ~~CHARLESTON, MO.~~ | ~~5000~~ | ~~7-1-1908~~ | ~~196~~ |
| SIKESTON, MO. | 2000 | 1-1-1908 | 216 |
| DEXTER, MO. | 2000 | 2-1-1908 | 256 |
| CHARLESTON, MO. | 5000 | 7-1-1908 | 362 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

The names of the months are printed across the top of the special cards. At the beginning of the year the cards are examined, and a small clip is placed on each card, representing a document which expires during that year, the clip being directly over the name of the month in which the paper expires. The first of each month it is a simple matter to take from the cards a memorandum of the papers expiring during that month, so that they can be given the attention required.

To keep the files clear of all dead matter, expired papers are removed from the main file drawers and placed in numerical order in a transfer case; the special card representing the document is also removed from the card file and placed in a cardboard transfer box. On the buff card a red ink line is drawn across the memorandum of the expired paper, but these cards remain in the regular file indefinitely, thus affording not only a complete list of the documents still in effect, but also all of those which have been in effect and have expired.—*(E. C. Blomeyer.)*

### (459) ACCOUNTING METHODS FOR THE WHOLESALE CREAMERY BUSINESS.

The receiving clerk keeps a record similar to the following of each can received and of all cans sent out, showing the patron number, how and when received and returned:

LFFT HAND PAGE.

Received from J. Galvin, Route 3, 248, 34, 426, 42, 127, 672, 430, 246, 146, 1072, 1462, 4, 76, 1532, 1269.

Received from 8:45 train, 1242, 725, 846, 574, 642, 1376, 1431, 84, 746, 227, 1001, 1145, 677, 1233, 1745.

Weigh Station No. 8 on 10:05 train, 12 ten gallon cans.

RIGHT HAND PAGE.

Empty cans out H. Adams, Route 4, 1367, 428, 536, 973, 647, 1068, 349, 1131, 1246, 1166, 1392.

Out on 10:05 train, 243, 1262, 1427, 263, 89, 554, 333, 765, 134, 1076, 987.

Weigh Station No. 3. Out on 6:15 train, 15 ten gallon cans, 1 five galoln can.

Each can of cream is then weighed and a record made on report blank (Form 2), showing patron number, size of can, gross tare and net weights. This record together with a sample of cream from each can is sent to the testing room where the sample is tested and the test entered on blank.

Sheet NO. A — Churn NO. 1

REPORT BLANK

Butter fat 934 lbs.
Churn Yield 1027 lbs.

| Patron NO. | 5 Gal. Can | 8 Gal. Can | 10 Gal. Can | Gross | Tare | Net | Test | Butter-fat | | Price | AMOUNT | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 684 | 1 | | | 52 | 12 | 40 | 30 | 12 | | | | | |
| 1142 | | 1 | | 60 | 14 | 46 | 28 | 12 | 8 | | | | |
| 246 | | | 1 | 94 | 20 | 74 | 32 | 23 | 6 | | | | |
| 1242 | | | 1 | 82 | 20 | 62 | 41 | 25 | 4 | | | | |
| 63 | | 1 | | 43 | 14 | 29 | 30 | 8 | 7 | | | | |
| 865 | | | | 96 | 20 | 76 | 38 | 28 | 8 | | | | |
| 973 | 1 | | | 38 | 11 | 27 | 22 | 5 | 9 | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | |

Shipped in 3 cans on Sept. 4 1907
Via P.M. Baggage
Weigh Station NO. 8 Chas. Burns Agt.

From this the amount of the butter-fat is figured and entered. Each of these sheets contain a record of twenty-four cans of cream; and about five of them, lettered a-b-c-d-e make a churn full. These five sheets are pinned together and the total amount of butter-fat represented is entered in the blank space at the top of sheet a. When the cream is churned and the butter weighed, the amount of butter is also recorded.

From these report blanks a ledger record (Form 3), is copied; also a statement made and mailed to each patron with his remittance. It has been found quite practical to employ two persons in posting this work. One to make the statements and the other to post the ledger record, which may be a duplicate statement, showing the date, net weight of cream, test, pounds of butter-fat, price per pound, and the amount. If this system is used and a remittance made to each patron one a month, the ledger record showing each patron's account for the month is filed in numerical order in a loose leaf binder.

The weigh station plan seeks to lessen the expense of shipping cans only part full of cream over long distances, as the railroad companies charge so much per can, varying with the size, regardless of the amount of cream they contain. These stations are established in distant towns where there are enough patrons to make up two or more gatherers routes. The weigh





MERCHANDISE AND SALES BOOK

| Date | Lbs. Cream | Test | Butter Fat | Butter | % over run | Cost of Cream | Cost of Supplies | Operating Expense | General Expense | Transportation |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

station cream gatherer makes out a daily report card the same as Form 1. This is checked in by the station agent, who weighs each patron's cream, takes out a test sample, tests it and makes out a report blank the same as Form 2. This report together with the gatherer's card is mailed to the office each day. He empties the cream from the patron's cans into other cans—usually ten gallon cans—marked with his weigh station number, filling each can full, and then ships it to the creamery.

The process of butter-making is an article of itself, so suffice it to say that as soon as churned the butter is packed into tubs and stored in cold storage rooms or frozen solid and cut into pound cakes, wrapped and stored awaiting sale or shipment.

When an order for butter or buttermilk is received, an order blank (Form 4) is made out and when the order is filled it is handed in to the office as a merchandise-out slip. From these slips a record is made on the right-hand page of the merchandise and sales book (Form 5), showing the date, name of buyer or consignee, pounds of butter and the amount, or if buttermilk, gallons of same and the amount, invoice number and car number; and also a place for the records of the account of sales in case of consignments, showing the date of sale, selling price, and the net amount received.

MERCHANDISE AND SALES BOOK

| Date | Sold to | L. F. | Butter | | Butter Milk | | Inv. NO. | Car NO. | Account of Sales | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Lbs. | AMOUNT | Bbls | Amount | | | Date | Price | AMOUNT |
| | | | | | | | | | | | |

**ORDER BLANK**

Date _____ 190__

Send to _____

_____

Via Freight _____ Express _____

_____ Tubs ____ lbs. Creamery Butter

_____ lb. Prints " "

_____ lb " II Creamery Butter

_____ Tubs ____ lbs "

_____ Bbls Buttermilk

Order Filled _____ 190__

By _____

Order NO. _____

Car NO. _____

_____ 190__

Cream Gathered on Route NO. _____

Shipped from _____

Via _____

| Patron NO. | 5 Gal. Can | 8 Gal. Can | 10 Gal. Can. | Patron NO. | 5 Gal. Can | 8 Gal. Can | 10 Gal Can |
|---|---|---|---|---|---|---|---|
| 1026 | 1 | | 1 | 671 | 1 | | 1 |
| 472 | | 2 | | 1241 | | 2 | |
| 643 | 2 | | | | | | |
| 49 | | | 1 | | | | |
| 762 | 1 | 1 | | | | | |
| 123X | | | 2 | | | | |
| 173 | 1 | | | | | | |
| 842 | | 1 | 1 | | | | |
| 946 | | | 1 | | | | |
| 872 | | 1 | | | | | |
| 863 | | | 2 | | | | |
| 576 | 1 | | | | | | |
| 948 | | | 1 | | | | |
| 476 | 2 | | | | | | |
| 82 | | | 1 | | | | |

_____ Gatherer

**STATEMENT**

Mr. Jas. C. Smith Patron no. 247

Saginaw, Mich.

Price 4 cents per N.Y.

| Date | | Lbs. Cream | Test | Butter Fat | | Price | Amount | |
|---|---|---|---|---|---|---|---|---|
| Sept. | 18 | 78 | 32 | 24 | 9 | 28 | 6 | 97 |
| " | 21 | 80 | 31 | 24 | 8 | 30 | 7 | 44 |
| " | 24 | 79 | 34 | 28 | 6 | 30 | 8 | 69 |
| | | | | | | | 23 | 05 |
| | | | | | | | No. | 247 |

The left hand page of this merchandise and sales book is a record of the cream received and of the butter made, showing the total pounds of cream in each churnful, the average test, the pounds of butter-fat, the pounds of butter churned, and the per cent of the over-run.

After closing the expense accounts for the month, there may also be entered on this page the cost of cream; transportation charges; cost of supplies including tubs, pound packages, salt, etc., operating expense, including salaries, rent, fuel, light, etc., and other general expense. The total of these items will represent the cost of butter. On the opposite page after entering the sales and shipments for the month add the inventory of amount of butter on hand at its market value, then add the shrinkage to balance





the butter account. The difference between these totals and the total cost is the profit or loss.

The sales are posted direct from the sales book to the general ledger, and only the totals for the month are journalized. The only other books required for this system besides the general ledger are an eight column cash book and an eight column journal.—(C. H. Washburn.)

## (460) KEEPING THE ACCOUNTS OF A SMALL CREAMERY.

The following is a description of an accounting system for a medium sized creamery. Form 1 is roughly drawn on a large sheet of tough paper, and tacked to the wall near where the raw material (milk and cream) is received. As each patron brings his supply the receiving clerk, after weighing and taking out a sample for testing purposes, records the number of pounds received on the sheet on the wall under the patron's number.

The advantage of having the sheet on the wall is that notations can be made without the sheet becoming milk stained. The clerk does not touch the sheet except with the point of his pencil.

The patrons are numbered and the milk cans are marked. This is so that when a driver brings in the cans of a dozen patrons the receiving clerk can weigh the milk and give each his due credit without asking a question. Furthermore, it is quicker to find numbers than names.

At the end of the month the sheet on the wall comes down to be replaced by another. The columns of the filled sheet are added, the footings being the number of pounds of milk received from the different patrons.

The accounts with the patrons are kept in a loose leaf ledger. The leaves are arranged in numerical order, patron No. 1 first; patron No. 2 second. On the sheet is noted the total number of pounds of milk received for the month, also the result of the test of the samples taken out daily. The result of the test is expressed as a percentage and this multiplied by the number of pounds of milk gives the number of pounds of butter-fat received for the month; and the number of pounds of butter-fat multiplied by the average price for the month gives the credit, which is placed in the column headed "Monthly Total."

| DEC. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |
| TOTAL. | | | | | | | | |

PATRON _____ No. _____

| MONTH | LBS. | TEST | LBS FAT | @ | MONTHLY TOTAL | DATE | ITEMS | DEBIT | BALANCE | DT. PAID |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN. | | | | | | | | | | |
| FEB. | | | | | | | | | | |
| MAR. | | | | | | | | | | |
| APR. | | | | | | | | | | |
| MAY | | | | | | | | | | |
| JUNE | | | | | | | | | | |
| JULY | | | | | | | | | | |
| AUG. | | | | | | | | | | |
| SEPT. | | | | | | | | | | |
| OCT. | | | | | | | | | | |
| NOV. | | | | | | | | | | |
| DEC. | | | | | | | | | | |
| YEARLY TOTAL | | | | | | | TOTAL | | | |
| | | | | | | | TOTAL DEBITS | | | |
| | | | | | | | YEARLY TOTAL | | | |

The debits for the month are the number of pounds of butter taken by the patron for home consumption multiplied by the price charged the patron. The difference between the "Monthly Total" and the "Debit" is the "Balance" which is generally paid the patron by check about the 10th of the succeeding month. The number and date of the check are noted in the column headed "Date Paid."

The sum of the monthly totals gives the yearly total and the sum of the "Debits" plus the sum of the "Balances" also gives the yearly total. If these are the same, the account is proved.

The bookkeeping for the customers to whom sales are made is also taken care of in a loose leaf ledger. Each customer has a leaf, and these leaves are arranged alphabetically. The sheet is 6x9 inches and is ruled as shown in Form 3, which form explains itself with sufficient detail.

Form 4 is also on a 6x9 inch loose leaf. It is kept in the back of the customers' ledger and is used for bringing together the factors that enter into the business of the month. On this sheet are recorded the number of pounds of butter produced for the different days of the month, also the sale to customers in the order in which they occurred. At the end of the month there is added to the sales side the number of pounds of butter sold to patrons and the total amount charged for the same. The total of these represents the receipts of the creamery. The total amount of the sales divided by the number of pounds sold gives the average selling price.





CUSTOMER _____

ADDRESS _____

| DATE | LBS | BUTTER | @ | AMOUNT | DATE | CREDITS | AMOUNT |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

The items on the cost side of the sheet are secured from two sources. First the cost of the butter-fat is the sum of the "Monthly Totals" in the patrons' ledger. The monthly totals are listed, added and only the grand total recorded. The other items come from a blotter which serves as a day book, cash book, sales book, journal, etc. The total cost divided by the number of pounds produced for the month gives the cost per pound.

MONTHLY SUMMARY _____ 190_____

| ITEMS OF COST | $ | DAY | LBS PRD | DAY | SOLD TO | LBS | @ | AMOUNT |
|---|---|---|---|---|---|---|---|---|
| | | 1 | | | | | | |
| BUTTER FAT | | 2 | | | | | | |
| LABOR | | 3 | | | | | | |
| FUEL, POWER, LIGHT | | 4 | | | | | | |
| PACKAGES | | 5 | | | | | | |
| SALT, COLORING, ETC. | | 6 | | | | | | |
| RENTS, TAXES, INSURANCE | | 7 | | | | | | |
| INCIDENTAL EXPENSES | | 8 | | | | | | |
| | | 9 | | | | | | |
| | | 10 | | | | | | |
| | | 11 | | | | | | |
| | | 12 | | | | | | |
| | | 13 | | | | | | |
| TOTAL | | 14 | | | | | | |
| | | 15 | | | | | | |
| | | 16 | | | | | | |
| | | 17 | | | | | | |
| | | 18 | | | | | | |
| COST PER LB | | 19 | | | | | | |
| AVERAGE SELLING PRICE | | 20 | | | | | | |
| | | 21 | | | | | | |
| | | 22 | | | | | | |
| | | 23 | | | | | | |
| | | 24 | | | | | | |
| | | 25 | | | | | | |
| | | 26 | | | | | | |
| | | 27 | | | | | | |
| | | 28 | | | | | | |
| | | 29 | | | | | | |
| | | 30 | | | | | | |
| | | 31 | | | | | | |
| | | TOTAL | | | | | | |

Of course the difference between the total sales and the total cost is only the approximate profit. To secure the exact profit inventories of the supplies on hand and the stock of unsold butter at the end of each month are taken into consideration. But these factors are fairly constant and are not noted except at the ends of the business years.

When the volume of business becomes several times its present dimension a ledger, kept on double entry principles, will be substituted instead of the "Monthly Summary" and an attempt will be made to charge and credit to each month exactly the items that belong to that month.—(R. H. Ellsworth.)

### (461) CREDIT REPORTS.

Reports made by customers to the concerns from whom they desire credit. A statement of assets and liabilities.

### (462) CREDIT SALES.

Sales to customers who do not pay cash.

### (463) CREDIT VOUCHERS.

Vouchers issued by managers of departments for the refund of money to customers who have returned goods purchased, or who have obtained allowances on account of defects in goods purchased.

### (464) CROSS ADDITION.

Adding horizontally instead of perpendicularly. A good example is the total column in a columnar cash book in which are entered the totals of the columns provided and obtained by cross footings or additions.

### (465) CUSTOMER.

One who enters into transactions with an owner of property for the purchase of commodities or something of value.

### (466) CUSTOMERS LISTS AND RECORDS.

It is the writer's experience in devising customers' follow-up systems that it is better to have too much information printed on the record card than too little, and the card here illustrated is arranged with the idea of covering any contingencies that may arise.

As soon as an inquiry is received the date relative to the "prospect" is placed upon the card and "the follow-up is on."

While form letters can be used it should be borne in mind that the average business man can see through a mimeographed letter, and therefore it will pay to have all letters typewritten; post cards are effective means of attracting attention, providing they are short and to the point; you can't





possibly land a customer on the first letter, so why not make them short and easily read?

In keeping track of literature and form letters sent out, it will not be necessary to mark up each card separately, simply put the date on the card when it was started, and keep a card in front of each drawer showing the date and kind of each piece of advertisement sent.

The question features of this card is a valuable one, and a person selling a staple or standard article can see when he has made four or five quotations to a particular prospect are marked "lost" in the quotation column that his chances of selling the party in question are not extremely bright.

The carrying of a sales summary on the reverse of a card is a feature that should not be overlooked. Don't depend upon going through your ledger at certain periods and jogging up those customers who have not been buying, but have your bookkeeper or a clerk call off the amount of each customer's purchases at the end of the month, and put it on the cards.

On the lower left hand corner of the card you will notice printed, "Clip upper right hand corner when party has been sold."

This is a good feature to incorporate in a follow-up system, as it will enable you to keep customers and prospect in the sample drawer and send different mail matter to each, all of the cards with cut corners representing customers.

### SPECIAL FORMS.

NAME _____ ADDRESS _____ CR. C O D

BUSINESS _____ RATING G F D B

ADDRESS _____ USE _____ TONS YEARLY

SOLD BY _____

RECOM'D BY _____

TERMS CHARGE C. O. D. _____

CREDIT LIMITED SUSPENDED _____

PAID USUALLY _____ DAYS

CARRIED _____ FEET WIND CHU. _____

CHUTED _____ FEET

FURNACE SIZE _____

RANGE SIZE _____

CANNEL _____

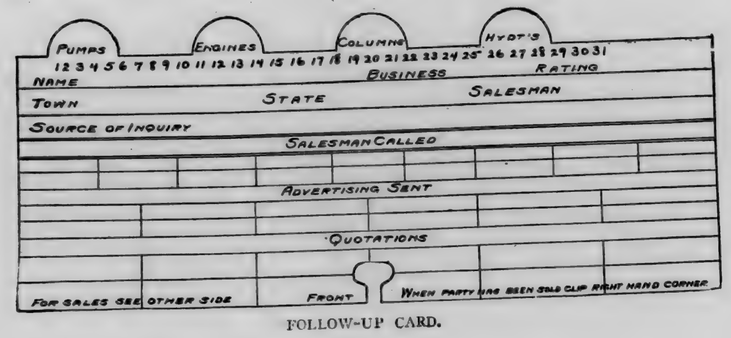
WOOD GRATE KIND _____

IF CUSTOMER LOST—WHY?

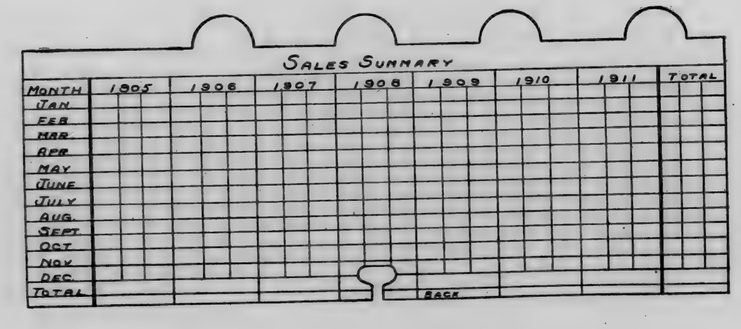
| LED. FOL. | 1902-3 | | 03-4 | | 04-5 | | 05-6 | | 06-7 | | 07-8 | | 08-9 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TONS | ORD. | TONS | ORD. | TONS | ORD. | TONS | ORD. | TONS | ORD. | TONS | ORD. | TONS | ORD. |
| APR. | | | | | | | | | | | | | | |
| MAY | | | | | | | | | | | | | | |
| JUN. | | | | | | | | | | | | | | |
| JUL. | | | | | | | | | | | | | | |
| AUG. | | | | | | | | | | | | | | |
| SEP. | | | | | | | | | | | | | | |
| OCT. | | | | | | | | | | | | | | |
| NOV. | | | | | | | | | | | | | | |
| DEC. | | | | | | | | | | | | | | |
| JAN. | | 03 | | 04 | | 05 | | 06 | | 07 | | 08 | | 09 |
| FEB. | | | | | | | | | | | | | | |
| MAR. | | | | | | | | | | | | | | |

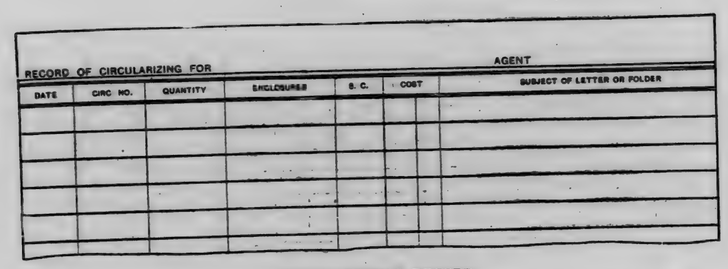
OTHER MEMO'S OVER

COAL AND COKE BUSINESS—CUSTOMER'S RECORD.




FOLLOW-UP CARD.

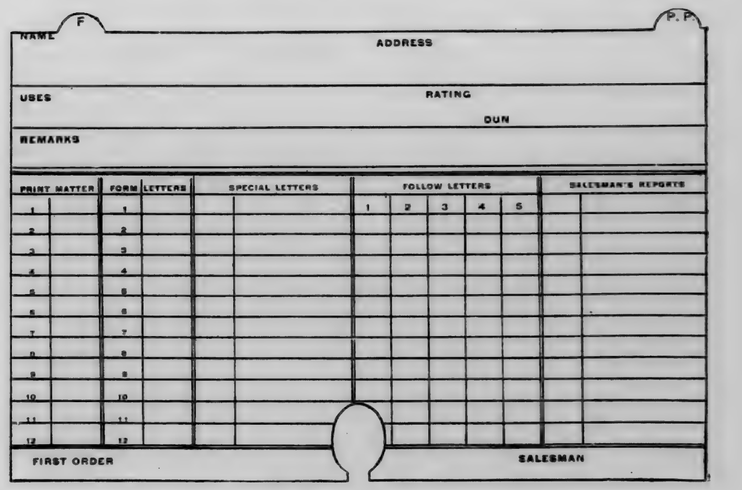


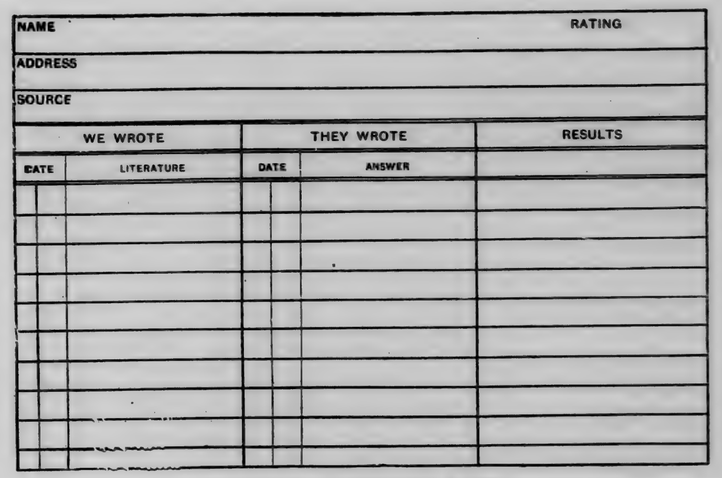

CIRCULARIZING RECORD.








FOLLOW-UP CARD.




PROSPECTIVE CUSTOMERS' RECORD.

### (467) DAILY STATEMENT.

To those who desire to obtain a daily financial statement of their affairs we suggest a summary distributed as may be desired, which will exhibit the daily condition of everything in which the proprietor or business man may be interested. This daily summary may also include inventory, provided it is possible to obtain the actual cost easily and to estimate a fairly accurate profit on the sales. We do not recommend this plan unless on account of special conditions the figure required may be ascertained without great trouble. In some businesses the plan is used with great success. (See Cash Balance Record).

### (468) DATE.

The designation or indication in an instrument of writing of the time and place, when and where it was made.

### (469) DAY BOOK.

A record used for various purposes, but eliminated as far as possible by up-to-date concerns who endeavor to prevent useless duplication of work. The use of a scratcher or memorandum book cannot in some cases be presented, but all orders received over the counter should be entered as received on duplicate order blanks, no day book or scratcher then being required. In some cases a record of this kind appears to be necessary; thus when articles are brought for repair it is impossible to fix at that time the cost of such repairs, and the order is therefore entered in the Day Book as a memorandum and there remains until the job is completed and the cost can be computed.

### (470) DAYS OF GRACE.

The ancient custom of allowing three days before protesting an unpaid note, interest being usually charged thereon. In most states, however, the commercial laws provide that a note shall become due and payable without taking days of grace into account, and this will doubtless ere long be the general practice in the United States. Even in Great Britain it is stated that the custom serves no practical use and unnecessary complicates bill transactions.

### (471) DEAD ACCOUNT.

A closed account. A non-active account.

### (472) DEAD RENT.

A term used in mining transactions to signify the minimum rent to be paid by the lessee to a mine, whether covered by stipulated royalties or not. The object of such rent is to satisfactorily arrange for the working of the mine. In some cases the dead rent is included in the royalty charge, and in other cases dead rent and royalty are both payable together.





### (473) DEATH OF PARTNER.

At the decease of a partner the partnership business is wound up, an inventory of the assets and liabilities being taken and the share of the estate of the deceased partner determined.

In case of unfinished orders and contracts, it is usual to appraise the value of the uncompleted work and include same in the settlement. Where, however, such appraisement cannot be equitably made, the final adjustment of accounts will be delayed until the result can be ascertained.

### (474) DEBENTURES.

(See Bonds).

### (475) DR.

An abbreviation of the term "Debtor."

### (476) DEBITS.

Consist of assets, expenses, negatives and losses, and are posted to the left-hand side of ledger accounts. The original use of the word "debit" indicated something of value parted with, the party receiving the benefit being a debtor to the party from whom the benefit was received, and accordingly being debited. In books of account, however, debits now cover all kinds of what may be called interchangeable transactions, i. e., transactions within a business in which values are shifted from one department to another without really parting with anything.

### (477) DEBIT LEDGER.

A term sometimes used to signify a customers' ledger.

### (478) DEBIT NOTE.

A memorandum authorizing a debit journal entry O. K.'d by some responsible official and afterwards used as a voucher. A journal voucher.

### (479) DEBT.

An obligation. Something due from one person to another, whether in money, goods or service.

A sum of money due by certain and express agreement.

All that is due a man under any form of obligation or promise.

Any claim for money.

### (480) DEBTOR.

One who owes or is indebted.

Applied also to impersonal accounts, as "expense debtor to cash," meaning that expense is debited and cash credited with an amount paid out.

## (481) DECIMAL WEIGHTS AND MEASURES.

The Metre is represented by the distance marked by two fine lines on the iridio-platinum standard bar numbered 16, when at the temperature of 0° centigrade. The metre is the only unit of metric measure of extension from which all other metric measures of extension, whether linear, superficial, or solid, shall be ascertained.

The Kilogram is represented by the cylindrical iridio-platinum standard kilogram weight numbered 18. The kilogram is the only unit of metric weight from which all other metric weights, and all measures having reference to metric weight, shall be ascertained.

The Litre is represented by the capacity at 0° centigrade of the cylindrical brass measure marked "Litre, 1897," and having a diameter equal to one-half its height. This litre at 0° centigrade when full contains one kilogram of distilled water at the temperature of 4° centigrade, under an atmospheric pressure equal to that represented by a column of mercury 760 millimetres high at 0° centigrade, at sea-level, and at latitude 45°, the weighing being made in air, but reduced by calculation to a vacuum. It is the only unit of metric measure of capacity from which all other metric measures of capacity, as well for liquids as for dry goods, shall be ascertained.

### ORDINARY TO METRIC.

Linear Measure.

1 Inch .....= 25.400 Millimetres
1 Foot (12 Inches)...= 0.30480 Metre.
1 Yard (3 Feet).....= 0.914399 Metre.
1 Fathom (6 Feet)..= 1.8288 Metres.
1 Pole (5½ Yards)...= 5.0292 Metres.
1 Chain (22 Yards)..= 20.1168 Metres.
1 Furlong (220 Yards=201.168 Metres.
1 Mile (8 Furlongs).= 1.6093 Kilo.

Square Measure.

1 Square Inch.....= 6.4516 Sq. c. m.
1 Sq. Foot (144 Sq. Inches) .....= 9.2903 Sq. d. m.
1 Sq. Yard (9 Sq. Feet) .....= 0.836126 Sq. m.
1 Perch (30¼ Sq. Yards) .....= 25.293 Sq. m.
1 Rod (40 Perches).= 10.117 Ares
1 Acre (4,840 Sq. Yards) .....= 0.40468 Hectare
1 Sq. Mile (640 Acres)=259.00 Hectares

Cubic Measure.

1 Cubic Inch .....=16.387 Cu. c. m.
1 Cubic Foot (1,728 Cubic Inches) .....= 0.028317 c. m.
1 Cubic Yard (27 Cubic Feet) .....= 0.764553 c. m.





Measures of Capacity.

1 Gill .....=1.42 Decilitres
1 Pint (4 Gills).....=0.568 Litre
1 Quart (2 Pints)...=1.136 Litres
1 Gallon (4 Quarts).=4.5459631 Litres
1 Peck (2 Gallons)..=9.092 Litres
1 Bushel (8 Gallons).= 3.637 Decilitres
1 Quarter (8 Bushels)=2.909 Hectolitres

Apothecaries Measure.

1 Minim .....=0.059 Millilitre
1 Fluid Scruple .....=1.184 Millilitres
1 Fluid Drachm (60 Minims) .....=3.552 Millilitres
1 Fluid Ounce (8 Drachms) .....=2.84123 Centilitres
1 Pint .....=0.568 Litre
1 Gallon (8 Pints or 160 Fluid Ounces)..=4.5459631 Litres

Avoirdupois Weight.

1 Grain .....= 0.0648 Gramme
1 Dram .....= 1.772 Grammes
1 Oz. (16 Drams)....=28.350 Grammes
1 Pound (16 Ozs. or 7,000 Grains) .....= 0.45359243 Kilog.
1 Stone (14 Lbs.)....= 6.350 Kilograms
1 Quarter (28 Lbs)...=12.70 Kilograms
1 Hundredweight (cwt.) (112 Lbs.)... 50.80 Kilograms 0.5080 Quintal
1 Ton (20 Cwt.).....= 1.0160 Tonnes or 1016 Kilograms

Troy Weight.

1 Grain .....= 0.0648 Gramme
1 Pennyweight (24 Grains) .....= 1.5552 Grammes
1 Troy Ounce (20 Pennyweights).....=31.1035 Grammes

Apothecaries Weight.

1 Grain .....= 0.0648 Gramme
1 Scruple (20 Grains)= 1.296 Grammes
1 Drachm (3 Scruples) .....= 3.888 Grammes
1 Oz. (8 Drachms)..=31.1035 Grammes

### METRIC TO ORDINARY.

Linear Measure.

1 Millimetre (mm) (1/1000 m.).....= 0.03937 Inch
1 Centimetre (1/100 m.) .....= 0.3937 Inch
1 Decimetre (1/10 m.)= 3.937 Inches 39.370113 Inches
1 Metre (m.) ..... 3.280843 Feet 1.0936143 Yards
1 Decametre (10 m.).= 10.936 Yards
1 Hectometre (100 m) =109.36 Yards

1 Kilometre (1000 m.)= 0.62137 Mile

Square Measure.

1 Sq. Centimetre ....= 0.15500 Sq. In.
1 Sq. Decimetre (100 Sq. Centimetres) ..= 15.500 Sq. Ins.
1 Sq. Metre (100 Sq. Decimetres) ..... 10.7639 Sq. Feet 1.1960 Sq. Yds.
1 Are (100 Sq. M.)..=119.60 Sq. Yards
1 Hectare (100 Ares or 10,000 Sq. M.)...= 2.4711 Acres

Cubic Measure.

1 Cubic Centimetre...= 0.0610 Cu. Inch
1 Cubic Decimetre (c. d.) (1000 Cubic Centimetres) .....= =61.024 Cu. Inches
1 Cubic Metre (1000 Cubic Decimetres)= 35.3148 Cu. Feet 1.307954 Cu. Yds.

Measure of Capacity.

1 Centilitre (1/100 Litre) .....=0.070 Gill
1 Decilitre (1/10 Litre) .....=0.176 Pint
1 Litrel ..... =1.75980 Pints
1 Decalitre (10 Litres) .....=2.200 Gallons
1 Hectolitre (100 Litres) .....=2.75 Bushels

Weight.
Avoirdupois.

1 Milligram (1/1000 Grm.) .....= 0.015 Grain
1 Centigram (1/100 Grm.) .....= 0.154 Grain
1 Decigram (1/10 Grm). .....= 1.543 Grains
1 Gramme (1 Grm.)..=15.432 Grains
1 Dekagram (10 Grm.) .....= 5.644 Drams
1 Hectogram (100 Grm.) .....= 3.527 Ounces
1 Kilogram (1,000 Grm.) .....=2.2046223 Lbs. or 15432.3564 Grains
1 Myriagram (10 Kilog.) .....=22.046 Lbs.
1 Quintal (100 Kilog.)= 1.968 Cwt.
1 Tonne (1,000 Kilog.) .....= 0.9842 Ton

Troy.

1 Gramme (1 Grm.).. 0.03215 Oz. Troy 15.432 Grains

Apothecaries.

1 Gramme (Grm.).... 0.2572 Drachm 0.7716 Scruple 15.432 Grains





## (482) DEFERRED BONDS.

See Bonds.

## (483) DEFERRED STOCKS.

See Stock.

## (484) DEFICIENCY ACCOUNT.

A term used to describe an account showing in detail how the deficit exhibited by the balance sheet of an insolvent trader or corporation was caused. Inasmuch as a deficit is also incurred over and above the amount of capital invested, it is apparent that Deficiency account must be charged with both capital invested and deficit, and credited with all losses and impairments of values which make up the that amount.

Or, it may be that on a given date there was a surplus which would also have to be accounted for.

We append a sample of such an account.

STATEMENT OF AFFAIRS, 1st JULY, 1905.

| | | |
|---|---|---|
| Liabilities— | | |
| Unsecured Creditors | | $144,480 00 |
| Fully secured Creditors | $11,760 00 | |
| Hold securities values (at cost) at | 13,150 00 | |
| Estimated Surplus, per contra | 1,390 00 | |
| Partly secured Creditors | 188,485 00 | |
| Less value of securities (estimated at cost) | 90,490 00 | 97,995 00 |
| Liability on Bills Receivable discounted | 29,165 00 | |
| Estimated to rank for dividend at (say) | | 5,000 00 |
| Preferential Creditors for salaries and wages | 4,110 00 | |
| Deducted per contra | | |
| | | $247,475 00 |
| Assets— | | |
| Cash—At bankers | $400 00 | |
| Cash—In hand | 20 00 | $420 00 |
| Office furniture (cost $1,445) estimated at | | 1,000 00 |
| Accounts Receivable—Good | 6,705 00 | |
| Accounts Receivable—Doubtful ($850 estimated at) | 425 00 | |
| Accounts Receivable—Bad ($62,690.00 estd. of no value) | | 7,130 00 |
| Stock in trade Main Office (cost $6,530, estimated at) | | 6,000 00 |
| Stock in trade and (less sundry liabilities) at branches cost $171,110, less $28,190 estimated loss or realization | | 142,920 00 |
| Buildings, plant, steamers, and carrying craft craft (cost $154,715) estimated at | | 54,715 00 |
| Estimated surplus from securities (per contra) | | 1,390 00 |
| | | $213,575 00 |
| Less preferential creditors | | 4.110 00 |

| | | |
|---|---|---|
| | | $209,465 00 |
| Deficiency | | 38,010 00 |
| | | $247,475 00 |

DEFICIENCY ACCOUNT, FROM 1st JULY, 1900, TO 1st JULY, 1905.

Dr.

| | | |
|---|---|---|
| To Capital—July 1, 1900 | | $210,000 00 |
| To Profits, as per books, viz.: | | |
| 1900-1 | $35,000 00 | |
| 1901-2 | 30,000 00 | 65,000 00 |
| | | $275,000 00 |

Cr.

| | | |
|---|---|---|
| By losses as per books, viz.: | | |
| 1902-3 | $500 00 | |
| 1903-4 | 3,000 00 | |
| 1904-5 | 5,155 00 | 8,655 00 |
| Drawings (at the rate of $22,500 per annum) | | 112,500 00 |
| Bad debts | | 62,690 00 |
| Estimated losses on realization, viz.: | | |
| Stock at main office | 530 00 | |
| Stock at branches | 28,190 00 | |
| Branch buildings, paint, etc | 100,000 00 | |
| Office furniture | 445 00 | 129,165 00 |
| | | $313,010 00 |
| Deficiency | | 38,010 00 |
| | | $275,000 00 |

## (485) DEFICIT.

The excess of expenditure over income. The balance of a Deficiency Account as shown in illustration—paragraph 484.

## (486) DELIVERY RECEIPT.

A receipt for goods delivered. Many business houses have adopted a system of triplicate forms, one copy being given to the customer as a bill, a duplicate to the teamster, who returns it to the office as a receipt for delivery after the goods have been delivered, and the third copy being turned over to the book-keeper, from which the amount of the bill is posted to the ledger.

## (487) DEMAND NOTE.

See NOTES.

## (488) DEMURRAGE.

In all bills of lading, and similar agreements, a clause is inserted providing that a certain number of days be allowed for unloading, or removing, the cargo, or freight, after receipt and, that should said cargo, or freight, be detained after this legal time the consignee, or freightee, will be liable for a certain fixed charge per day. This charge is termed "demurrage."





## (489) DEPARTMENTS.

The subdivisions of a business in which different classes of goods are sold or services performed.

## (490) DEPARTMENTALIZATION OF GENERAL STORES.

In almost every small town will be found that useful and convenient institution, "the general store." In this store may be obtained everything the ordinary habitant desires to buy—groceries, hardware, boots and shoes, dry goods, furniture, carpets, ready-made clothing, etc. The proprietor is usually a man of considerable ability and local influence, but he doesn't know for certain which of his departments is paying the best, whether some department is being so badly managed as to be a steady loser or whether he is getting all the money his merchandise is sold for.

He probably doesn't keep his books by double entry because it entails too much book-keeping, and all the business records are kept by a young lady who has too much to do already.

He keeps no record of goods on hand, either in packages or on shelf, and if his sales clerks are in the habit of carrying something home with them every night he remains in blissful ignorance of the fact.

He carries an old-fashioned ledger for customers' accounts, into which his book-keeper posts each day the items of customers' charges from the credit sales tickets. His accounts payable are hung on a file as they come in and the due-dates entered in a diary.

At the end of the year he inventories all of his assets and liabilities—deducts the inventory of the preceding year, and in this way arrives at the profit made on the year's transactions; but if he has less on hand this year than last he doesn't know how it happened or what to blame for it. There is a leak somewhere, but he is like a man looking for a needle in a haystack in the dark. He is bewildered, uneasy, suspicious, and gropes blindly for omissions from his balance sheet, personally checks over his inventory of merchandise with a great expenditure of time and trouble—accuses his book-keeper of neglect to enter up customers' charges—but after all gets no satisfaction except a confirmation of the fact that he is losing money instead of making it.

A simple, economical and well arranged system of accounting would put an end to all the unsatisfactory conditions above described, and would enable the merchant to know at any time just how much he is making, or losing, and in which department of his business. It would also enable him to ascertain the reason why he is making, or losing money in any department, or why he made money last year in a department and lost money this year in that department .

It will enable him to check up his department heads, his individual salesmen, and account for the disposition of everything that has been purchased.

PURCHASES.

In order to be able to ascertain the record of the transactions of any department it is necessary to know what has been purchased for each department and its cost. There are several ways of recording purchases, but we recommend the following method as being simple, efficient and easily understood by the person keeping the books:

Purchase orders should be written on a special form with carbon duplicate, the latter to be retained, and from it the invoices of goods received will be checked; after which the duplicate should be attached to the invoice, thus making a complete voucher, together with the receipt for the amount paid, or the returned check.

It will be noted in the form of purchase record attached (Diagram 1) that a separate column is provided for each department and a "total," or "accounts payable" column. At the end of each month the footing of the "accounts payable" column is to be posted to the credit of an accounts payable account, and the footing of each departmental column will be posted to the debit of accounts to be opened with each department . These accounts will be carried in the general ledger, the arrangement of which will be hereafter described.

DUE DATES.

At the right of the departmental column will be found a record of maturities, or due dates, so arranged that the bills payable in any month may be seen at a glance and their payment provided for.

PURCHASE AND MATURITY RECORD

| Date | Voucher No. | Names | Folio | Accounts Payable | Paid | DEPARTMENTAL DISTRIBUTION A Amt. | B Amt. | C Amt. | D Amt. | E Amt. | F Amt. | Date of Payment | Discount | MATURITY RECORD Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

FIG 1

CASH BOOK.

In the form of cash book illustrated will be seen an "accounts payable" column on the cash paid side . In this column will be entered all payments made on account of goods purchased, whether by cash or check, and the total of this column will be posted at the end of each month to the debit of accounts payable in the general ledger, which will then show as follows:





ACCOUNTS PAYABLE ACCOUNT.

Dr.

Jan. 31. Payments (from cash book) ..... $1,000 00

Cr.

Jan. 31. Purchases during month ..... $1,800 00

Bal.

Jan. 31. Cr. ..... $ 800 00

This account, therefore, always exhibits the amount of accounts payable unpaid, or outstanding.

## (491) DEPARTMENTAL EXPENSE.

In order to show the net result of the transactions of each department it is necessary to charge those departments not only with goods purchased but also with the expense of running the departments. This expense will consist of direct and indirect charges. Salesmen's salaries and departmental supplies are direct expenses. Rent, light, heat, janitor service, etc,. are indirect expenses.

INDIRECT EXPENSE.

This can, as a rule, be equitably distributed on the basis of amount of floor space occupied by the department, but if the proprietor draws a certain proportion of the profits as a weekly or monthly salary, this salary should be charged to the department account on the basis of turnover (actual cost of goods sold), and the book-keeper's salary should be distributed in like manner. In this way the grocery and hardware departments, which are usually the busiest and require the largest amount of supervision, will bear the largest proportion of cost supervision and management, and of the book-keeping.

All indirect expense of the business will be debited, as paid, to a general expense account, and when the adjustments are made this account will be credited and the separate department expense accounts debited.

The salesmen's salaries will be debited direct to the department expense account (a separate departmental expense account being carried with each department in the general ledger) each week as paid. The indirect expenses will be computed and charged to the respective departmental accounts at the end of the year, or whenever the books are closed. (The average general store proprietor will not care to close his books oftener than once a year.)

The adjustments of indirect expense will be made by journal entry as follows:

Debits.

| | | |
|---|---|---|
| Department A. | (Groceries) ..... | $200 00 |
| " B. | (Hardware) ..... | 160 00 |
| " C. | (Boots and Shoes) ..... | 140 00 |
| " D. | (Dry Goods) ..... | 200 00 |
| " E. | (Furniture and Carpets) ..... | 150 00 |
| "F. | (Clothing) ..... | 150 00 |

Credits.

Rent .....$1,000 00

The other indirect expense will be distributed in a similar manner, it being understood that if separate accounts are kept with any particular indirect expenses those accounts will be credited, and if the charges are all included in a general expense account, general expense account will be credited.

### SALES.

To complete the departmental statistics it is now necessary to arrange to give each department credit for the amount of its sales.

### CASH SALES.

With regard to the cash sales, the merchant has the choice of two methods, the use of the cash register, or the cash sales ticket system.

### CASH REGISTERS.

The installation of cash registers for each department is somewhat expensive. In many cases they are used in the grocery, hardware and dry goods departments, while the cash sales ticket system is retained in the others.

A retail establishment, or general store, can use the multiple drawer cash register system very economically in the saving of time, viz., waiting for change, possible stoppage of the entire cash system (not infrequently for a whole day), busy cashier or many other such reasons. It is a great improvement over the best carrier system and this saving of time allows of more trade being taken care of and does away with any impatience on the part of the customer occasioned by these delays. The operating expense of such a system is much less, doing away with the cashier, no power cost to operate motors or blowers, and no repair costs such as found with the carrier systems.

In installing such a system it is first necessary to plan out your departments, studying out what register could be used to advantage in each particular department, for instance, the grocery department employs at all times three salesmen and in the busy season possibly two additional. For this department you would want a five multiple drawer register, and so on through the entire store; it is always better to provide a little more accommodation than is absolutely necessary for any change that might possibly be made in a department.

When more than one department is using registers it is customary to number each consecutively, as groceries department number one, hardware department number two, and so on; these should be placed consecutively, which would make the work of taking details much simpler.





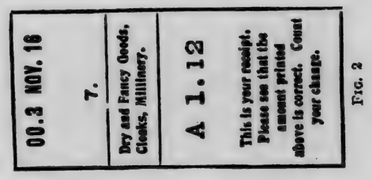



FIG. 2

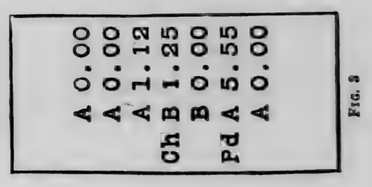



FIG. 3

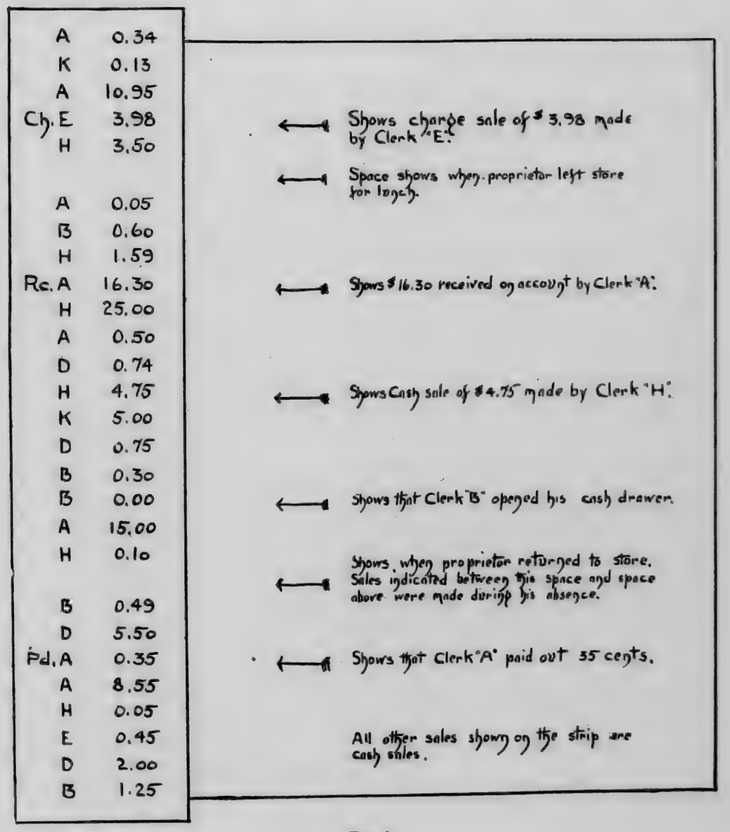



FIG. 4

**REFUND VOUCHER**

Front. Reverse.

REFUND VOUCHER
Countersigned.

Reg. No..... Letter..... No.....

for merchandise returned as per list on reverse.

Paid to.....

Danbury, Conn....., 190.

Fig. 6

**CLERK'S DAILY STATEMENT**

The clerk will first remove the amount of change ( 20.00 ) placed in the drawer at the beginning of the day's business, putting it in the smallest purse and list the balance as:

| | | | | |
|---|---|---|---|---|
| Cash in drawer..... | | 2 | 4 | 75 |
| No of slips 2 Paid out ..... | | | 1 | 45 |
| Cash Sales..... | | 2 | 6 | 30 |
| No of slips 6 Credit Sales..... | | 1 | 3 | 80 |
| Total Sales..... | | 3 | 9 | 70 |

I hereby certify the above is correct to the best of my knowledge.

Reg. No. 2 Letter A No. 20

Date Sept. 10 190 6

Fig. 7.





WHEN CREDIT TICKETS ARE USED.

At the close of each day a recapitulation must be made of the credit tickets of each department, the footings made, and the totals entered on a daily summary book; or, the totals may be posted direct to the credit of the departmental sales accounts in the general ledger, a separate sales account being opened there with each department. If a daily summary book is used the totals are posted at the end of each month from this book to the credit of the departmental sales accounts.

CASH BOOK.

In the cash book, form of which is submitted, it will be noted that separate columns are provided for the entry of receipts from customers who have made their purchases on credit, and receipts from cash sales. The reason for providing the separate columns for accounts receivable is explained later on. The totals of the departmental cash sales columns will be credited to the departmental accounts in the general ledger at the end of each month.

TRADING ACCOUNT.

We have now provided for the purchases, the expenses and the sales of each department, and are ready to assemble these items in a trading accounts that shall show exactly how much a department has made, or lost, in a given period. This trading account will be arranged as follows:

GROCERY DEPARTMENT TRADING ACCOUNT.

For year ending December 31, 1906.

Debits.

| | | |
|---|---|---|
| Merchandise Inventory, Jan. 1, 1906 | $ 3,790 00 | |
| Purchases during year | 24,050 00 | |
| Direct expense | 4 000 00 | |
| Indirect expense | 2,750 00 | |

Credits.

| | | |
|---|---|---|
| Sales—Credit | | $19,800 00 |
| Sales—Cash | | 20,400 00 |
| Merchandise Inventory, Dec. 31, 1906 | | 4,250 00 |
| Department Profit | 9,860 00 | |
| | $44,450 00 | 44,450 00 |

The department profits are transferred by journal entry at the end of each year to the general profit and loss account, which will then show the total revenue derived from the business.

DEPARTMENTAL EXPENSE.

The proper basis of comparison of expense of running a department, or a business, is not the gross sales, but the actual cost of the goods turned over. If it costs $5,000 to sell $100,000 worth of goods last year, it should not, under ordinary circumstances, cost $6,000 to sell the same amount of goods this year. If the books show that the cost of running a department in proportion to the volume of business done is, say 20 per cent higher this year than last, there should be some good reason for such an increase and consequent diminution of profit. It may be accounted for by bad management, or by the cutting of prices, but whatever the cause, it should be investigated and an explanation found.

TURNOVER.

The cost of goods turned over is found as follows:

GROCERY DEPARTMENT.

Turnover for year ending Dec. 31, 1906.

| | |
|---|---|
| Merchandise Inventory, Jan. 1, 1906 | $ 3,790 00 |
| Purchases | 24,050 00 |
| Expense | 6,750 00 |
| | $34,590 00 |
| Less Merchandise Inventory, Dec. 31, 1904 | 4,250 00 |
| Cost of goods turned over | $30,340 00 |

Percentage of Indirect Expense computed on Turnover..... .....
Percentage of Direct Expense computed on Turnover..... .....
Percentage of Gross Profit computed on Turnover..... .....
(Gross Profit is the balance of the Trading account excluding items of indirect expense, viz.: $12,610).
Percentage of Net Profit computed on Turnover..... .....

As this comparative record and the percentage will be needed only once a year, it will be an easy matter to rule up a sheet, exhibiting all the departments, one underneath the other, and having money columns in which to enter the amounts, etc., year by year.

## (492) SECTIONALIZATION OF LEDGERS.

The system of accounting here described provides for a sectionalization of ledgers, i. e., accounts receivable will be carried as a separate ledger section, and all special personal, representative, departmental and nominal accounts will be carried in a general ledger. In the latter the accounts should be arranged after the following order:

First—Special Personal Accounts.
Second—Asset Accounts:
Cash





Bank
Accounts Receivable Account
Petty Accounts Receivable
Bills Receivable
Real Estate
Furniture and Fixtures
Interest Receivable.

Third—Liability Accounts:
Accounts Payable
Bills Payable
Reserves for Depreciation, etc.
Partners' Investment Accounts.

Fourth—Department Trading Accounts:
Department A. Purchases; Expense; Sales
Department B. Purchases; Expense; Sales
Department C. Purchases; Expense; Sales
Department D. Purchases; Expense; Sales
Department E. Purchases; Expense; Sales
Department F. Purchases; Expense; Sales

Fifth—Expense Accounts:
Insurance
General Expense
Advertising
Etc.

From this ledger the monthly trial balance will be obtained.

## (493. CUSTOMERS' ACCOUNTS.

A labor-saving system for dealing with accounts receivable will, undoubtedly, be welcomed by those who have been accustomed to carrying individual accounts with customers in ledger form.

Carleton, Mich. March 1st 1907

SOLD TO Mrs. E. K. Pelton

All remittances must be made in New York Exchange Express or Postal Order. 93 Third St

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Feb. 26 | 1 | Box, 20 qts. Cranberries | .18 | 3 | 60 | | | |
| | 5 | Doz. Eggs | .35 | 1 | 75 | | | |
| | 20 | lbs. gran. Sugar | .08 | 1 | 60 | | | |
| | 1 | bbl. Flour | 10.00 | 10 | 00 | | | |
| | 10 | gals. Syrup | .75 | 7 | 50 | | | |
| | 1 | doz. cans Corn | 2.00 | 2 | 00 | | | |
| | 2 | " " Lima Beans | 3.00 | 6 | 00 | | | |
| | 15 | lbs Mocha Tea | .80 | 12 | 00 | | | |
| | 1 | box Laundry Soap | 4.00 | 4 | 00 | | | |
| | 50 | lbs Dried Apples | .10 | 5 | 00 | $ | 53 | 45 |

Fig. 8

We recommend a duplicate bill and charge system, using a statement blank similar to the attached sample (Fig. 8). It will be noted that this is a folded blank intended for use in a loose leaf binder, and that it provides for a second copy to be made by means of carbon paper.

In operating this system the book-keeper would start a new blank the first of each month for every customer having a charge account. These blanks would be arranged alphabetically in a loose leaf binder, and where purchases are made charges would be entered direct on the statement blank form the sales tickets. At the end of the month there would, therefore, be a complete statement in duplicate; the original to be mailed to the customer and the duplicate to be retained as the office record.

It would be unnecessary to post the daily sales to the customers' accounts each day; it would be sufficient to post the total amount at the end of each month. This, of course, refers to those customers' accounts it was considered desirable to carry in a ledger.

PETTY ACCOUNTS RECEIVABLE.

For petty accounts usually settled within the month and not considered necessary to carry in a ledger, the above described method would also be found a great labor-saver. The sheets for those accounts could be carried in a separate binder; then, at the end of the month, or at any other time, instead of having one copy of the charges, the book-keeper would have it in duplicate,

**CASH JOURNAL**

| Date | Names of Accounts | Cash | | Bank | | Accts. Receivable | | Petty Accts Receivable | Folio | General Ledger | | Dept A | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Cr. | | Dr. | Cr. | Dr. | Cr. |
| | | | | | | | | | | | | | |

**CASH JOURNAL**

| Dept B. | | Dept C. | | Dept D. | | Dept E. | | Dept F. | | General Expense | Proprietors Account |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Cr. | Dr. | Dr. |
| | | | | | | | | | | | |

Fig. 9





and could send the statement to the customer. Then, too, as payments are made the original would be receipted and handed to the customer, while the duplicate would be used as a cash ticket to be treated the same as the sales tickets for the day.

In order to keep proper track of the regular accounts receivable and also the received side of the cash book, as per illustration (Fig. 9). The totals of these columns are credited at the end of each month to accounts receivable account and petty accounts receivable in the general ledger. The total debits to customers in both sections will be debited to these accounts so that as explained in relation to accounts payable account, the balance of the accounts receivable account would always show customers' balances unpaid, or outstanding.

The following is an illustration of the accounts receivable account as it will appear in the general ledger:

Dr.
Jan. 31, Sales to customers.....$7,500 00
Cr.
Jan 31, Cash and other credits to customers.....$5,800 00
Bal.
Jan. 31, Dr. .....$2,700 00

The following is a sample of the trial balance:

TRIAL BALANCE AS TAKEN FROM THE GENERAL LEDGER.

| | Dr. | Cr. |
|---|---|---|
| Proprietors' Personal Account: | | |
| Cash | | |
| Bank | | |
| Accounts Receivable Account | | |
| Petty Accounts Receivable Account | | |
| Bills Receivable | | |
| Real Estate | | |
| Furniture and Fixtures | | |
| Interest Receivable | | |
| Accounts Payable | | |
| Bills Payable | | |
| Reserve for Depreciation | | |
| Partners' Investment Accounts | | |
| Department A.—Purchases | | |
| Department A.—Expense | | |
| Department A.—Sales | | |
| Department B.—Purchases. | | |
| Department B.—Expense | | |
| Department B.—Sales. | | |
| Department C.—Purchases | | |
| Department C.—Expense | | |
| Department C.—Sales | | |
| Department D.—Purchases | | |
| Department D.—Expense | | |
| Department D.—Sales | | |
| Department E.—Purchases | | |
| Department E.—Expense | | |
| Department E.—Sales | | |
| Department F.—Purchases | | |

Department F.—Expense
Department F.—Sales
Insurance
General Expense
Advertising

BALANCE SHEET.

| | Assets | Liabilities |
|---|---|---|
| Cash | | |
| Bank | | |
| Accounts Receivable Account | | |
| Petty Accounts Receivable Account | | |
| Bills Receivable | | |
| Real Estate | | |
| Furniture and Fixtures | | |
| Interest Receivable | | |
| Accounts Payable. | | |
| Bills Payable | | |
| Reserve for Depreciation | | |
| Partners' Investment Accounts | | |

PROFIT AND LOSS ACCOUNT.

| Debits. |
|---|
| Insurance |
| General Expense |
| Advertising |
| **Credits.** |
| Net Profit—Department A. |
| Net Profit—Department B. |
| Net Profit—Department C. |
| Net Profit—Department D. |
| Net Profit—Department E. |
| Net Profit—Department F. |
| Interest on Investments. |

The form of Salary Book illustrated (Fig. 10) will be found convenient where employes purchase merchandise of the house, or receive advances on account of salary.

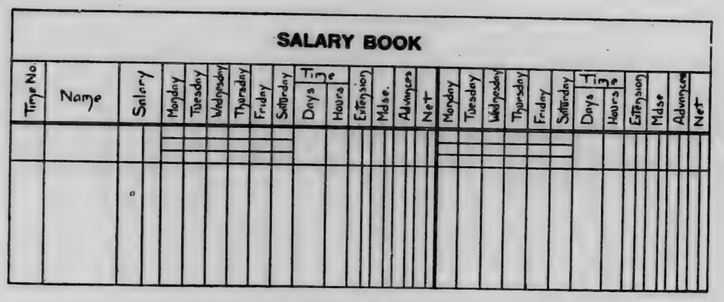



FIG. 10

## (494) DEPARTMENT DRUG STORE.

The business is divided into eight departments, namely, Drugs, Cigars, News, Flowers, Soda, Lobby, Farm and Five Points. The name of each





department designates the general character of merchandise sold in the department, with the exception of Lobby, Farm, and Five Points.

Lobby is a designation given the cigar stand in the lobby of the building in which the main store is located.

Farm is applied to the greenhouses and kindred equipment used in the production of plants and flowers, which production largely supplies the flower department.

Five Points is a branch drug store, in another part of the city, the locality being known as "Five Points."

## (495) COMBINATION SALES RECORD, MONTHLY STATEMENT AND CUSTOMERS' ACCOUNT.

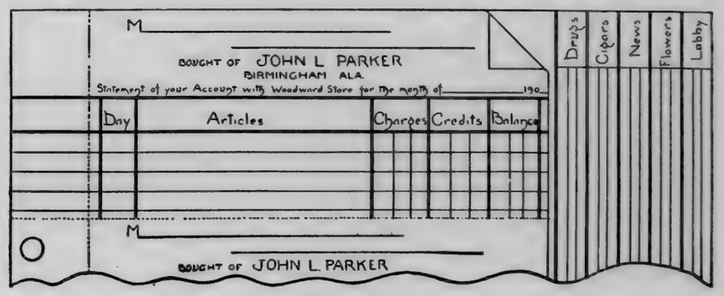
Forms 1 and 2 are sheets of loose leaf sales book. Charges are written up daily in the sales book with carbon paper between the forms. At the close of the month's business each individual sales account is totaled and the total posted to the ledger. Ledger balance, if any, is added or deducted on Form 1 and an itemized bill is ready for mailing or collector.

The method has several advantages; it permits of supplying at any time during the month of an itemized statement immediately upon request. It permits of prompt mailing or giving to collector of itemized accounts at the end of each month. A duplicate copy is retained. But one posting of charges to an individual per month is required. As the charges are written up distribution is made to the proper departments, in the columns provided. These columns are totaled and the department credited accordingly.

No distribution is provided for Soda, Farm or Five Points for the following reasons:

Soda department is a strictly cash business and therefore has no credit sales.

Farm has no charges except through the flower department. Five Points keep a separate sales book and ledger.




FORMS 1 AND 2

Month of _____ 190__ **CASH**

| Account | L. F. | Debit Receipts | Credit Disbursements | Collections | Cash Sales | Cash Purchases | Drugs Dr | Drugs Cr. | Cigars Dr. | Cigars Cr. | News Dr. | News Cr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brought Forward | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |

**CASH**

| Flowers Dr | Flowers Cr | Soda Dr | Soda Cr | Lobby Dr | Lobby Cr | The Farm Dr | The Farm Cr | Five Points Dr | Five Points Cr | Gen'l Expense Dr | Gen'l Expense Cr. | Int and Disct. Dr | Int and Disct. Cr. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | 3 |
| | | | | | | | | | | | | | | 4 |
| | | | | | | | | | | | | | | 5 |
| | | | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | | | 7 |
| | | | | | | | | | | | | | | 8 |

FORM 3

CASH BOOK AND JOURNAL.

Form 3 is a cash book, showing the distribution.

The columns "Collections," "Cash Sales" and "Cash Purchases" are information columns. The total of each day's collections is extended to that column and carried forward from day to day, to the end of the month, making it possible to see at a glance how collections are coming in or make comparisons.

The total of each day's cash sales, in all departments, is extended to "Cash Sale" column and the total of the columns at the end of the month gives the cash sales for the month. The same is true of "Cash Purchase" column. The distribution of cash items, whether debit or credit, needs no explanation. At the end of each month the distribution columns are totaled and posted to the proper accounts. But one posting of distributed items per month to each department is necessary.

Form 4 is journal showing like distribution as cash book. "Credit Sales" and "Credit Purchases" columns are information columns. Each day the register showing of credit sales in all departments is totaled and entered in "Credit Sales" column. This permits the knowledge of the amount of merchandise going out on credit at any period during the month. Of course, the sales book gives the total at the end of month and the postings are taken from that source.





Month of _____ 190__ **JOURNAL**

| Day | Account | L F. | Debit | Credit | Credit Sales | Credit Purchases | Drugs Dr | Drugs Cr | Cigars Dr | Cigars Cr. | News Dr | News Cr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Brought Forward | | | | | | | | | | | |
| | 1 | | | | | | | | | | | |
| | 2 | | | | | | | | | | | |
| | 3 | | | | | | | | | | | |
| | 4 | | | | | | | | | | | |
| | 5 | | | | | | | | | | | |
| | 6 | | | | | | | | | | | |
| | 7 | | | | | | | | | | | |

FORE 4 LEFT HAND PAGE

**JOURNAL**

| Flowers Dr | Flowers Cr | Soda Dr | Soda Cr | Lobby Dr | Lobby Cr | The Farm Dr | The Farm Cr | Five Points Dr | Five Points Cr | Gen'l Expense Dr | Gen'l Expense Cr | Int and Disct Dr | Int and Disct Cr | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | 3 |
| | | | | | | | | | | | | | | 4 |
| | | | | | | | | | | | | | | 5 |
| | | | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | | | 7 |

FORM 4 RIGHT HAND PAGE

All time purchases are entered in "Credit Purchase" column the total at the end of the month showing the credit purchases for the month.

But one posting for each department per month is required on the distributed items in the journal.

MISCELLANEOUS SHEET NO._____

| | Date | Name | Address | Folio | | Date | Credit or Transfer | Folio | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

FORM 5

SUNDRY ACCOUNTS.

**Form 5** is miscellaneous page of loose leaf ledger. Customers whom we estimate will not purchase again or purchase but seldom are placed in miscellaneous to avoid giving an entire page uselessly. Should they become con-

TRANSCRIPT OF BUSINESS AT

FIVE POINTS STORE for Week Ending, Saturday, _____ 190__

| CASH RECEIPTS | SALES | COLLECTION | CASH DISBURSEMENTS | EXPENSE | M'D'S |
|---|---|---|---|---|---|
| Sunday | | | Pay Roll | | |
| Monday | | | | | |
| Tuesday | | | | | |
| Wednesday | | | | | |
| Thursday | | | | | |
| Friday | | | | | |
| Saturday | | | | | |
| Total. | | | Total. | | |
| Total Sales | | | Total Expense. | | |
| | | | Remitted Office during Week. | | |
| | | | Cash Herewith. | | |
| Cash on hand last Report. | | | Cash on Hand. | | |
| Total. | | | Total. | | |

CASH SALES { Increase / Decrease } COLLECTIONS { Increase / Decrease } EXPENSE { Increase / Decrease } MERCHANDISE { Increase / Decrease }

| CREDIT SALES | ACCOUNTS RECEIVABLE |
|---|---|
| Sunday | Outstanding last Report. |
| Monday | Add Credit Sales for Week. |
| Tuesday | Total |
| Wednesday | DEDUCT |
| Thursday | Collections for Week. |
| Friday | Collections by Office. |
| Saturday | Total. |
| Total Credit Sales. | Outstanding Accounts this Date. |
| Add Total Cash Sales. | |
| Total Credit and Cash Sales for Week. | |

CREDIT SALES { Increase / Decrease } ACCOUNTS RECEIVABLE { Increase / Decrease }

SUGGESTIONS.

TO
JOHN L PARKER
Woodward Bldg
BIRMINGHAM, ALABAMA

Manager

FORM 6

stant or frequent buyers a transfer is made to a page.

WEEKLY REPORTS.

Form 6 is the weekly report from Five Points store, covering both cash and credit sales and presenting clear and valuable statistics in regard to amount and class of business done, the disposition of cash receipts, the condition of Accounts Receivable Accounts, etc. This is a good branch store report form.

Form 7 is the weekly farm report from which it will be noticed that the produce is sold direct from the greenhouses as well as in the stores. On the back of this form provision is made for an itemized report of the farm pay roll for the week, and the receipts of the employes for their wages, all O. K.'d by the superintendent.

It will be seen from this explanation and the forms attached thereto that each department account is in reality a trading account, to which has been





WEEKLY FARM REPORT

For Week Ending, Saturday, _____ 190__

| RECEIPTS | | EXPENDITURES | | MAINTENANCE | IMPROVEMENTS |
|---|---|---|---|---|---|
| Cash on hand last report | | Pay Roll (Itemized on back) | | | |
| Cash received from Office | | Cash Purchases (Receipted Bills herewith) | | | |
| Cash received for Pay Roll | | Sundry Items | | | |
| Cash received on account (Itemized on back) | | | | | |
| Cash Sales (Duplicate Sale Checks herewith) | | Total | | | |
| | | Maintenance | | | |
| | | Cash paid Office | | | |
| Total | | Cash on hand Total | | | |
| Cash Sales | | Cash Purchases | | | |
| Credit Sales (Charge tickets herewith) | | Credit Purchases (Invoices herewith) | | | |
| Sales to Woodward Bldg Rendered) | | | | | |
| Total Sales | | Total Purchases | | | |

REMARKS.

Superintendent

FORM 7

debited all purchases, pay rolls, and proportion of general expense belonging to it, and to which has been credited all cash and credit sales effected.

The Comparative Balance Sheet and profit and loss account also submitted will thus be easily understood and appreciated, as it contains a summary of everything worth knowing in the business. The departmental trading, or profit and loss accounts, exhibit the total transactions at both main store and Five Points, and the footing of the net profit made in each depart-

CONSOLIDATED BALANCE SHEET AND COMPARATIVE STATEMENT

| ACCOUNTS | DEC 31 1905 | DEC. 31 1906 | DEC. 31 1907 |
|---|---|---|---|
| Real Estate | 28500 | | |
| Cash + Bank | 1850 | | |
| Five Points | 17 25 | | |
| Store Fixtures + Fittings | 2105 60 | | |
| Five Points | 970 | | |
| Farm | 1600 | | |
| Accounts Receivable | 3109 15 | | |
| Five Points | 562 40 | | |
| Inventories | 1109 16 | | |
| Five Points | 808 10 | | |
| Accounts Payable | | 2216 80 | |
| Five Points | | 350 20 | |
| J L Parker Investment % | | 31451 66 | |
| Drawings % | 3400 | | |
| Surplus for Year | | 10013 | |
| | 44051 66 | 44051 66 | |
| DRUGS DEPT | | | |
| Inventories | 825 | 924 | |
| Total Charges | 7628 50 | | |
| Sales | | 11792 50 | |
| Net Profit | 4263 | | |
| CIGARS DEPT | | | |
| Inventories | 129 75 | 152 60 | |
| Total Charges | 2705 25 | | |
| Sales | | 4547 90 | |
| Net Profit | 1867 50 | | |
| NEWS DEPT | | | |
| Inventories | 22 04 | 17 40 | |
| Total Charges | 420 08 | | |
| Sales | | 670 96 | |
| Net Profit | 246 55 | | |
| FLOWERS & FARM DEPT | | | |
| Inventories | 789 50 | 625 | |
| Total Charges | 3520 25 | | |
| Sales | | 5174 | |
| Net Profit | 1489 25 | | |
| SODA DEPT | | | |
| Inventories | 49 28 | 61 50 | |
| Total Charges | 524 19 | | |
| Sales | | 1680 97 | |
| Net Profit | 1175 | | |
| LOBBY DEPT | | | |
| Inventories | 128 50 | 136 75 | |
| Total Charges | 580 20 | | |
| Sales | | 1543 95 | |
| Net Profit | 972 | | |

FORM 8

ment must agree with the surplus shown on the balance sheet. This surplus is, of course, afterwards credited to the investments accounts of J. L. Parker.

The same form of Consolidated Sheet and Comparative Statement may be used for the purpose of obtaining weekly totals, the only drawback being that it is necessary to carry either a book inventory or to take an actual inventory. This feature of an accounting system must be governed by circumstances.

## (496) DEPARTMENT STORE CLASSIFICATION.

| No. | Department. |
|---|---|
| 1 | Grocery |
| | Bakery |
| | Candy |
| 4 | Meats |
| 5 | Crockery and Hardware |
| 6 | Restaurant |
| 8 | Silks |
| 9 | Dress Goods |
| 11 | Wash Goods |
| 12 | Linens |
| | Art Goods |
| 14 | Underwear and Hosiery |
| 15 | Notions |
| | Dress Trimmings |
| 17 | Toilets |
| | Stationery |
| | Cutlery |
| 19 | Jewelry |
| 21 | Leather Goods |
| 23 | Ribbons |
| 24 | Laces and Embroideries |
| | Handkerchiefs and Neckwear |
| | Veilings |
| 25 | Women's Gloces |
| 27 | Men's Furnishings |
| 28 | Trunks and Suit Cases |
| 29 | Hats and Caps |
| 30 | Barber Shop |
| 31 | Men's Shoes |
| 32 | Drugs |
| 34 | Patterns |
| 35 | Optical |
| 36 | Women's Cloaks and Suits |
| 37 | Millinery |
| 38 | Muslin Underwear |
| 39 | Infants' Wear |
| 40 | Women's Shoes |
| 41 | Men's and Boys' Clothing |
| 42 | Women's Waists |
| 43 | Sporting Goods and Toys |
| 44 | Photograph Studio |
| 45 | Carpets and Rugs |
| 46 | Lace Curtains and Draperies |
| 47 | Wall Paper |
| 48 | Furniture |
| 49 | Cut Glass |
| 50 | Floral Dept. |
| 51 | Corsets |
| 52 | Music |

## (497) USEFUL FORMS FOR LARGE DEPARTMENT STORES.

The accounting necessary for the larger department stores to be found in cities of the calibre of New York, Boston and Chicago is necessarily very expensive and complicated, calling for a large number of books and forms which are entirely unnecessary in smaller businesses. In some of these department stores the purchases are so large and varied that the purchase accounts will number several thousand in number, calling for the use of perhaps five or six separate purchase ledgers, usually divided alphabetically. This necessitates the use of as many columns in cash book and journal, so that each ledger may be proved separately on the controlling principle.

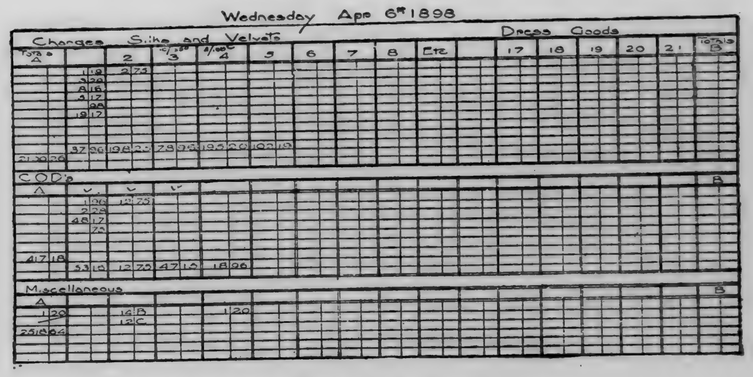
Some of the forms used in these stores are illustrated below.

When goods on consignment are returned, it is necessary to make a memorandum of same in a special return and allowance book.

This is a department summary book, in which purchases are distributed to the various departments.








SALES SUMMARY

DEPARTMENT TRANSFERS ANALYSIS

Month of April 1898

CHARGES - BLACK INK
CREDITS - RED INK

| A Dr | A Cr | B Dr | B Cr | C Dr | C Cr | D Dr | D Cr | E Dr | E Cr | F Dr | F Cr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 12 | 1 16 | | | | | | | | | | |
| 1 98 | 7 23 | | | | | | | | | | |
| 12 | 18 | | | | | | | | | | |
| 12 | 18 17 | | | | | | | | | | |
| 3 14 | | | | | | | | | | | |
| 18 58 | 20 55 | | | | | | | | | | |
| Net 97 | | Net 1420 | | Net 187 | | Net 3918 | | Net | | Net | |

Gross Charges 221824
Gross Credits 221924

| Proof | | Total Net Transfers |
|---|---|---|
| 1 142 17 | A | 97 |
| 2 18 28 | B | 14 29 |
| 4 93 17 | C | 187 |
| 5 29 18 | D | 39 18 |
| 6 | E | |
| 7 | F | |
| 8 | G | |
| 9 | H | |
| 11 | I | |
| 12 | J | |
| 13 | K | |
| 14 | L | |
| 15 | M | |
| 16 | N | |
| 18 | O | |
| 19 | P | |
| 20 | Q | |
| 21 | R | |
| 22 | S | |
| 23 | T | |
| 24 | U | |
| 25 | V | |
| 26 | W | |
| 27 | X | |
| 28 | Y | |
| 29 | Z | |
| 30 | | |
| 221824 | | |

COST SUMMARY FOR THE DRESSMAKING BUSINESS

| Date | Order No | Description | Estimated Cost: Material | Estimated Cost: Labor | Estimated Cost: Expense | Actual Cost: Materials Used | Actual Cost: Rate per Yard | Actual Cost: Cost of Materials | Actual Cost: Labor | Actual Cost: Percentage of General Expense | Total Cost | Selling Price | Profit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |

## MANUFACTURING ANALYSIS BOOK.

LEFT — Wednesday Apr. 6th 1898 — Manufacturers Etc.

| | | |

SUMMARY OF CASH TICKETS.

CASHIER '18 Wednesday—April 6th 1898

| A Silks & Velvets | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Etc | | | | | | |
| 1 18 | | | | | | | | | | | | | | |
| 1 14 | | | | | | | | | | | | | | |
| 1 26 | | | | | | | | | | | | | | |
| 1 09 | | | | | | | | | | | | | | |
| 2 20 | | | | | | | | | | | | | | |
| 1 Pr. | | | | | | | | | | | | | | |
| 12 18 | | | | | | | | | | | | | | |
| 4 14 | | | | | | | | | | | | | | |
| 1 09 | | | | | | | | | | | | | | |
| 24 21 | | | | | | | | | | | | | | |
| 2 16 | | | | | | | | | | | | | | |
| 1 14 | | | | | | | | | | | | | | |
| 8 16 | | | | | | | | | | | | | | |
| 2 23 | | | | | | | | | | | | | | |
| 23 13 | 29 19 | 16 14 | 19 36 | 42 17 | 47 19 | | | | | | | | | |
| | | | | | 211 12 | | | | | | | | | |

INVOICE ANALYSIS 189

| A | | B | | C | | D | | E | | F | | G | | H | | I | | J | | K | | L | | M | | N | | Etc. | Etc. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AH | LZ | A-H | L-Z | A-H | L-Z | A-H | L-Z | AH | L-Z | AH | L-Z | A-H | L-Z | A-H | L-Z | I-K | L-Z | A-H | L-Z | AH | L-Z | A-H | L-Z | A-H | L-Z | AH | L-Z | Etc. | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Fu | | Ga | | Gn | | Ha | | Hi | | Ib | | In | | Ja | | Jo | | Ka | | Kn | | La | | Lo | | Etc | Etc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | AK | LZ | Etc. | Etc. |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

REMITTANCE BLANK

FROM NAME AND ADDRESS

Date _____ 189__

M_____

Enclosed you will find check for $ in full payment of the following invoices —

| Date of Invoice | Amount of Invoice | Less Returns & Allowances | Net Invoice | Disct Date | Discount | Net |
|---|---|---|---|---|---|---|
| | | | | | | |
| Totals | | | | | | |

A receipt for the above is not necessary. Kindly credit our account with the same and oblige

Very truly yours

_____





REMITTANCE BLANK.

When these blanks have been filled out they are handed to the clerk who makes out the checks.

SUNDRY PURCHASE TICKET.

This is used as a record of purchases made from other department stores of articles not on hand.

SUNDRY PURCHASE TICKET

No 10008 Date _____ X 189__

Pay to Miss Smith X

Twenty _____ Dollars

For Cash Purchases — Amount Given $ 20.00

For Dept A B & C. — Amount Returned $ 2.96

Net $ 17.04

No 10008 Date _____ X 189__

Articles purchased by Miss Smith

| | | |
|---|---|---|
| Dept A | 10 yds Silk | $ 10.50 |
| Dept B | 8 yds Dress Goods | $ 4.92 |
| Dept C | 2 yds Lace Net | $ .62 |
| | | $ |
| | | $ |
| | | $ |
| | Total | $ 17.04 |

Authorized by Jones X

Received by Brown

Countersigned by Allen Supt

COST SYSTEM FOR WORK ROOM.

As all the manufacturing departments employ the same accounting systems with but little change, which is occasioned by the different lines manufactured, the explanation of one will therefore practically explain them all.

In the millinery room, which we will call "manufacturing department No. 8," the trimming of hats is carried on. When an order is received from the department, whether "stock" or "special," and whereon the style is specified, or as in the case of "stock" orders, left with the trimmer, a manufacturing ticket is at once given out. An illustration of this form is herewith shown. The manufacturing number is the number of the hat—the future "stock number." The "running" number is given it on its return to the desk from whence it was given out, and is practically the entry number. By way of illustration, the ticket is filled out in an abbreviated form and is practically self-explanatory. It will be noticed that "outside goods" are apparently made up at their cost price, but as a matter of fact, a small percentage has been added on to defray cost of handling—usually 5 per cent. From all house materials, a flat discount (called the manufacturing discount) is deducted, in order to bring the goods down to their approximate cost with 5 per cent. added as in the case of outside goods.

The data in the lower portion is obtained from a time ticket issued with, and attached to the manufacturing ticket, whereon the time given out and time returned is noted with the names of the different "hands" hrough which the hat finds its way, by the forelady in charge generally. The price of the

labor is not by any means the actual cost per hour, but an arbitrary price set for the particular branch of work it affects.

On the return of the finished hat to the desk, the ticket is entered in a "cost journal," ruled as follows:

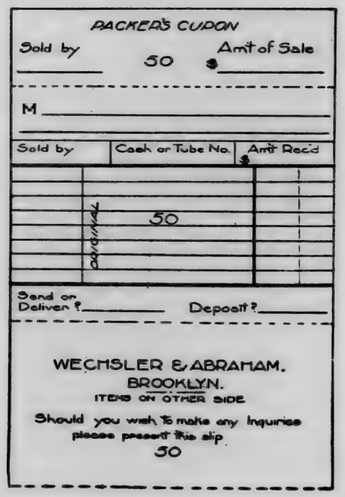
A "stock ticket" reciting the number, the article and the total cost is then attached, and with the hat is sent to the sales department, where the selling price is put on. The manufacturing ticket is retained in the workroom and the stock ticket is sent to the auditing department for the purpose of debiting the sales department, and entering by the manufacturing audit clerk, as will be later explained under that heading.

CASH TICKETS.

These tickets are usually made in pads of fifty and are so arranged that a carbon lies between the original and its duplicate. Another style that has found much favor, arranges these tickets in a continuous strip, alternately coupon, original and duplicate. In this style, the detaching of a "set" of tickets (coupon, original and duplicate) brings the carbon leaf automatically over the next duplicate, the mere closing of the covers of the book folding the original and coupon over it. The tickets are numbered consecutively from 1 to 50, the tickets of each set (coupon, original and duplicate) bearing the same numbers, as shown in the illustration.

They are sometimes secured in an adjustable cover in which the pad or strip is securely held by a clasp, but often a cheap permanent cover is used, and for certain reasons is preferred by some stores.

CASH TICKETS








In the back of each book is a summary of sales printed on the inside back cover, where permanent covers are used, on loose cards where the adjustable covers find favor. The former method is the more commendable, as in the latter the loose cards are ofen lost. The accompanying illustration gives the form.

## (498) DEPARTMENT AND INTER-DEPARTMENT ORDERS.

In general all orders should be issued by someone having authority. Nothing creates confusion in the business more than cases where orders are issued by persons without that proper acknowledged authority, which guarantees that the orders will be carried out and that conflicting orders be avoided. Department orders should be issued only by the head of the department to his subordinates; inter-department orders should be issued by the same department head to the head of the department which is to perform the order. Nothing tends to do away with the best devised system more than lack of such a scheme.

It should be recognized by every department manager that one of his first duties is to get the best out of his subordinates. He should be glad to see and to encourage any ambitious man in his department, but he should always watch and control him, and never allow or acknowledge and self-established authority on the part of the employe. Ambition is only a part of the struggle for existence and a main factor in the progress of the whole world, but without such control on the part of the manager, ambition is only likely to change to that kind of jealousy that shall undisputably create all kinds of confusion and do away with that discipline which is the only guarantee that the transactions of the department or the business will be carried on in the proper way, and the work and ambition of the subordinates be used and accumulated to promote the work and the interests of the department.

Another question is what form shall the order have, oral or written form? The superiority of the latter is as evident as the defects of the former, and yet it is impossible in every case to use the written order form. An illustration will show this. As advantageous it will be to use the written form where an order is given by the sales department to the purchasing department to order a certain supply of a certain kind of merchandise, as foolish will it be to use the same form when a book or a catalog is wanted, supposing the order can be given directly and carried out right away. But that is no reason why the system of using the written order-form should not be established. Common sense will do away with every doubt. Presence of a written order always puts the evidence of guilt or negligence on the right party.

## (499) DEPARTMENT STORE CARD BANK LEDGER.

## (500) DEPOSIT.

See Bank ACCOUNT—Check Register.

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4[illegible] Deferred Bonds
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## (501) DEPRECIATION.

The definitions, explanations and instructions in regard to depreciation are numerous and diversified in many important directions. We present the following examples of methods recommended by accountants in good standing, with a reputation of experience and efficiency:

(A) The amount which should be deducted from the book value of certain assets for the purpose of ascertaining, after allowing for deterioration, the real value of these assets, and further for the purpose of arriving at the legitimate amount of profit made during a given period and available for appropriation or distribution as the case may be.

(B) The establishment of a Reserve account, instead of making deductions from the value of assets, for the reason that in this way the asset depreciated will stand on the books at the actual cost, which is found advantageous in connection with fire adjustments.

(C) Distribution of depreciation over shop orders as part of the burden or general factory expense.

(D) The establishment of a reserve for repairs instead of for depreciation, the cost of repairs being expected to cover both wear and tear and depreciation.

Proposition (B) is, in our opinion, the best because if the estimated depreciation proves to be excessive, a transfer may easily be made to the Surplus account to which it originally belongs; but in connection with a business which represents a monopoly and where competition is not keen, proposition (C) certainly has its advantages.

The principal disadvantages of this latter plan is that the depreciation thus charged against customers will probably be distributed by way of dividend with the profits actually earned, so that when the machinery needs replacing there will be no fund in existence for its replacement.

One of the principal troubles in connection with depreciation charges is the usual inclination of the directors of a corporation to reduce them in a bad year so as to make a better showing, while they never trouble to even up matters by increasing the charges in a good year. From an accounting standpoint there is no excuse for variations of this nature, and the protests of the public accounting profession on this practice are unanimous and vehement. Some of these protests are quite amusing. In one case an actual sinking fund was established, *i. e.*—a fund which represented an actual outside investment. The corporation got into financial difficulties and then used the sinking fund for the replacement of special loans as they fell due. When, therefore, the plant and machinery were actually wiped out or needed immediate replacement, the assets were gone and the sinking fund was gone.

## (502) INTEREST ON CAPITAL AND DEPRECIATION.

Why should interest on the capital invested in a productive plant, which is invested in the ordinary way of carrying on the business of the undertaking, be added to the provision for depreciation? This method complicates and

obscures the actual facts, and is by no means to be commended. The locking up of the capital for a time in productive plant is one of the incidents of the undertaking, and is one of the purposes for which the capital is provided, and the whole profit resulting from the various incidents of the business is the reward of the capital invested therein; and it appears that between the two methods, interest or no interest, for this particular purpose, the latter has much to commend it. If interest is to be calculated on portions of capital locked up from time to time in the course of carrying on the business, it would follow that it should be computed on an overdue debt, for instance, the amount so computed being debited to the Profit and Loss Account as a loss on sales, while on the credit side of the Profit and Loss Account would appear the fictitious interest so charged upon the overdue debt. Indeed, to carry the matter to its logical conclusion, and having regard to the fact that the amount of capital locked up in productive plant averages itself as closely as capital locked up in debts, interest should be computed on all debts outstanding, whether due or not, less perhaps the amounts payable to creditors, Profit and Loss Account being credited with this interest and at the same time debited with a similar sum under the head of Loss on Sales. I fully appreciate the great importance of interest on capital as a factor in ascertaining cost of production, but I do not think it should as a rule be added to the provision for depreciation, as is involved by the annuity method.—*P. D. Leake, F. C. A.*

### (503) DEPRECIATION AND SECRET RESERVES.

The practice of some business executives of providing a reserve for depreciation greatly in excess of the actual requirements and thus establishing a secret reserve has been severely criticised.

It is always better to err on the right side if it is necessary to err at all, but it must be apparent that in a corporation whose shares are open to public subscription and transfer, this secret reserve is established at the expense of the present stockholders and to the benefit of future stockholders.

### (504) METHODS OF COMPUTING DEPRECIATION.

An English author describes four methods of depreciation generally in use in the commercial world, namely:

(A) By way of an equal annual sum charged over a given number of years.

(B) By charging a fixed rate of depreciation upon the amount as diminished year by year.

(C) By the annual charge of a sinking fund, which, invested at a given rate of interest, would redeem the capital expended in a given number of years.

(D) By the creation of a special reserve fund built up out of an annual charge to profit and loss account.

In discussing the question as to which method should be given the prefer-





ence, the author refers to the fact that there should always be a residual value taken into consideration.

In a mine, depreciation is usually figured on the estimated output and the length of time it will take to produce that output, but in respect of ordinary machinery, the depreciation should cover not only the estimated life of the machine, but the possibility of supersession. The author referred to prefers Plan "B" and does not take into consideration the substitution of a certain charge per year for services of the machine, said charges to be based on the estimated life of the machine, the number of hours the machine will be in operation during a year, the cost of maintenance, and a certain percentage added to provide against supersession. This cost per year is regularly added to prime cost on the shop orders, thus constituting a part of productive labor and treating the machine in the same way as a human operator.

The distinction between that portion of machine expense to be prorated over productive labor and that portion which may be described as the depreciation charge, will, we believe, be clearly appreciated from the standpoint given.

That portion relating to depreciation consists of the charge made in respect of the estimated life of the machine, cost of maintenance, and provision against supersession.

That portion relating to general factory expense consists of such items as rent, light, heat, and power used in operation.

### GENERAL DEPRECIATION.

For the proper provision of depreciation on buildings, etc., we prefer Plan "B."

### ANOTHER VIEW.

"Depreciation" is a "shrinking in value of an asset." This may arise from—

(a) Use.
(b) Lapse of time (*e. g.*, in the case of a leasehold).
(c) Obsolescence (*i. e.*, the progress of new inventions).

What amount should be written off in any particular case is very debatable, but one maxim cannot be too well understood—

A charge for depreciation has no relation to profits and should be made whether profit is being made or not.

The points to be considered in principle are:—

(1) Cost price.
(2) "Life."
(3) Extent of expenditure on "maintenance."
(4) Earning value as compared with other means of production.
(5) Residual value.

At the same time short time and overtime must not be lost sight of, nor the speed of the machinery, nor (in the case of boilers) the quality of water.

There may be said to be four methods of providing for it.

(1) By a fixed annual sum.
(2) A fixed percentage on the original value.
(3) A fixed percentage on the diminished value.
(4) One sum to cover repairs, renewals, and depreciation.

Method (3) is largely supported and is in common use on the ground that it equalizes the total charge, as, in the early years, you get a heavy charge for depreciation and small repairs, and, as years go on, the former diminishes and the latter increases.

The two following accounts illustrate method (4):—

PLANT ACCOUNT.

| | | | |
|---|---|---|---|
| Dec. 31 | To Cash | 100,000 | |
| 1901 | | | |
| Dec. 31 | To Additions | 1,000 | |
| | | 101,000 | (All Additions, not Renewals.) |
| 1902 | | | |
| Dec. 31 | To Additions | 2,000 | |
| | | 103,000 | |

DEPRECIATION ACCOUNT.

| | | | | | | |
|---|---|---|---|---|---|---|
| Dec. 31 | To | Repairs and Renewals | 500 | Dec. 31 | By | Profit and Loss account 5% on 100,000 | 5,000 |
| | " | Balance | 4,500 | Dec. 31 | " | Balance | 4,500 |
| | | | | 1902 | | | |
| | | | | Dec. 31 | " | Profit and Loss account 5% on 101,000 | 5,050 |
| 1902 | | | | | | | |
| Dec. 31 | " | Repairs and Renewals | 1,000 | Dec. 31 | " | Balance | 8,550 |
| | " | Balance | 8,550 | 1903 | | | |
| | | | | Dec. 31 | " | Profit and Loss account 5% on 103,000 | 5,150 |
| 1903 | | | | | | | |
| Dec. 31 | " | Repairs and Renewals | 3,100 | | | | |
| | " | Balance | 10,600 | Dec. 31 | " | Balance | 10,600 |

and so on.

It will be noticed that the extent of the Cr. Balance to Depreciation Account shows how much has been provided (net) towards depreciation and renewal. Obviously, the account must never, under any circumstances, have a Dr. balance. It is equally clear that the amount set aside should be increased as the total plant is increased.—*R. N. Carter, F. C. A.*





(505) DEPRECIATION RATES.

The following suggestions as to rates of depreciation have been extracted from a recent work on the subject:

Street railroad permanent way (heavy steel rails on concrete foundations); life, 20 to 40 years; rate two and one-half to five per cent.

Street railroad cars (kept in constant repair; life, 10 to 20 years; rate, five to ten per cent.

Overhead wires; life three to five years; rate, 25 to 33⅓ per cent., but the large residual value of the copper must be taken into consideration in fixing this rate.

Patterns designed on copper rollers; rate, two and one-half to five per cent.

Patterns in wood, or iron; rate, 20 to 33⅓ per cent, but taking into account the residual value of the material.

Special patterns are charged direct to the job for which they have been made. Standard patterns which can be used over and over again on different jobs must be separately considered, and the rate fixed in accordance with the business conditions, *i. e.*, the length of time during which the pattern may be reasonably supposed to continue to be of service.

Main buildings of gas-works and gas-holders; rate, two and one-half to five per cent. on diminishing values.

Furnaces and plant subject to rapid deterioration; rate, ten per cent. on diminishing values.

Ships; rate, five to ten per cent.

Horses; rate, 12½ to 20 per cent.

Factory and Buildings; rate, 2½ per cent. to 5 per cent on diminishing value.

Boilers (separately); rate, 7½ per cent. to 10 per cent.

Moving Machinery; rate, 5 per cent. to 10 per cent. on diminishing value.

Furniture and Fixtures; rate, 7 per cent. to 12½ per cent. on diminishing value.

Rolling Stock; rate, 5 per cent. to 10 per cent. on diminishing value.

Electric Wires; rate, 25 per cent. to 33⅓ per cent. on original value.

(506) PIXLEY ON DEPRECIATION.

A frequent method of arriving at the total amount to be written off for depreciation is the one which is perhaps the most thoroughly unsound which could be devised, viz., first ascertaining the profit without depreciation, then taking into consideration the amount of dividend which the directors desire to pay, and leaving any balance available as the proper amount for depreciation. A more mischievous and unsound system could not be acted upon, or, from the directors' and officers' selfish point of view, a more foolish one. The object of directors and secretaries ought not to be to pay as high a dividend as possible, but to do exactly the reverse. A percentage on the capital paid away in dividend can never be recalled, while one retained in hand is always available. A director who consents to agree to recommend a quarter per cent.

more dividend than he is absolutely compelled is exceedingly foolish, while a secretary who assists him is more foolish still. There is no doubt that thousands of corporations have been wound up through this insane craze for paying high dividends, when lower ones would have contented the stockholders and preserved their capital for a longer period.

It may be argued that the directors have no right by writing off too much for depreciation in any one year, to minimize the profit of that year, and thus deprive stockholders, who may happen to be stockholders when the dividend is prepared, and who may sell their stock afterwards, of that which they are legitimately entitled to. This theory is, surely an entirely false one; it is not incumbent upon the directors to consider in any way individual stockholders, or a special group of stockholders, and certainly not those who make a practice of buying and selling stock and holding them for short periods. It is their duty to keep the capital of their company intact, and do their best to make it a permanent institution. With this view directors and secretaries should endeavor to eliminate the fictitious assets from their balance sheets as soon as possible, and to replace them by investments which in bad times will enable them to pay a moderate dividend. In frequent instances corporations, after paying dividends of 15 and 20 per cent. for years, have gone into liquidation within 12 months of their last high dividend, through their not having in hand a reserve out of which to meet a temporary depression in their particular line of business.

Directors and officers, therefore, in simply looking at the matter from their own point of view, and doing their best to preserve their fees and their situations for years to come, are acting in the true interests of the stockholders as well as themselves. In further support of this, it is undoubtedly a fact that the stock of a company that has paid fair dividends, and has a large reserve, is more saleable and commands higher prices than that of one that has paid large dividends, but cannot in its accounts show that there is anything to fall back upon in case of emergency.

In settling, therefore, the amount of depreciation, the directors should not take into consideration how the result of their decision will affect the dividend, or how the dividend will affect the market price of the company's stock. Directors have nothing to do with the market price of the stock and from the moment they commence to regard any question respecting the internal management of their company from that point of view, it becomes almost impossible for them to do their duty honestly. They should ascertain the very fullest amount that ought to be chargeable for depreciation, even if the result shows a loss, while a little difference would make a profit, and place the accounts before the stockholders without any attempt to make them look better.

### (507) DEPRECIATION OF MACHINERY.

Not only do various current expenses continue to accrue whether the factory is working or closed, but in some instances the depreciation of





machinery continues although it is not in use. In fact, it is stated that some very delicate machinery will depreciate more readily when not in use than when subject to ordinary wear and tear. It is therefore a matter of considerable importance to investigate this feature in order to secure accurate results.

It is also necessary to take into consideration the fact that there is always a risk of machinery becoming obsolete on account of improved inventions, and, to be perfectly safe, it is necessary to provide for a depreciation reserve sufficient to take care of this possibility, always bearing in mind that if the amount reserved against depreciation is found to be too large, the excess may with propriety be retransferred to the surplus account from which it came.

It is true that some accountants object to this suggested retransfer, and refer to it as an uncertain and intangible item, but we fail to appreciate the reason for such a criticism, or why such a credit to profit and loss, or surplus, should be any more intangible, or uncertain than any other item contained in the profit and loss and surplus accounts. It is very desirable, so far as possible, to get away from academic arguments that lead nowhere, and hold closely to actualities.

#### DEPRECIATION OF MACHINES PROBLEM.

We manufacture wooden spokes for wheels, almost the entire work being done by machinery. Hitherto we have had no efficient cost system, but I have now received instructions to organize one. I am somewhat doubtful as to the proper treatment of the machinery. Does depreciation enter into the cost of manufacture? How would you compute the value of the machine hours? The standard unit is 1,000 spokes of a particular size.

#### SOLUTION.

Machinery used in a factory takes the place of hand labor; therefore, the manufactured product should be charged with the cost of the machine's time just as much as the hand's time. But machinery is an investment, and the manufacturer is entitled to interest on his investment just as though his capital was sunk in other enterprises. How does he receive this interest? A machine, under normal conditions, has a normal life—that is, the makers guarantee that with proper treatment and care it will do so much work and last a certain number of years. If the machine is run more than the specifications stipulate, or if it is used on heavier work than it is supposed to do, or if it is neglected, it must follow that its life is shortened materially, And vice versa, if conditions are the opposite.

Now, every year that a machine is in use its original value becomes less; in other words it depreciates. The amount of this diminution in value depends upon the treatment the machine receives. The manufacturer, therefore, purchasing a machine knows that it is good, say, for ten years, and that at the end of that time he will have to purchase another one to take its place. Knowing the life of the machine, he will, if wise, figure the interest on his investment for the period, each succeeding year after the first, however, being decreased by the amount of the depreciation and interest calculated on the

residue. The total amount therefore produced will be the amount the machine has to earn in ten years to pay for itself.

Confronted with the proposition that he must purchase another machine in ten years' time, the manufacturer has to consider where he is going to get the money for the new purchase. Profits in the tenth year may not be large enough to be drawn upon for the purchase of new machinery. What then can he do? Presupposing that the machine is good for ten years, each year it must depreciate one-tenth or thereabouts. This depreciation each year should be charged against profits as reducing the net profit available for distribution, and credit to an account, "Reserve for Depreciation of Machinery," or some such title. The accumulation in ten years should be enough to purchase a new machine, the salvage from the old one covering any shortage that may occur.

Crediting this depreciation account serves the purpose of leaving the machinery account on the books intact, but in making up the balance sheet the asset account, machinery, tools and fixtures is offset by this reserve for depreciation, thus showing the net value of the investment. Some manufacturers deduct the annual depreciation from the original account each year, the machinery account on the books showing a value which may or may not be correct in proportion to the correctness of the amount depreciated. In case of fire this method would play directly into the hands of the fire insurance company in adjusting the losses, as the machines might be worth far more than the actual book values stated.

Depreciation is more assuredly a factor in the cost of manufacture, for, having been charged against profits, it must be considered an expense of the business just as much as other expenses, non-productive labor, etc., and as an expense it must be pro-rated over the product in order to arrive at a just cost. Another expense, maintenance of the machine in good working order, replacement of broken parts, etc., has also to be distributed over the product and made a part of cost of production.

If the machines have been in use for some time, it will be necessary to have a re-valuation of them made, and the probable life of each machine estimated by a competent person. If the machines are new so much the better, and for the purpose of this article I will suppose they are. In purchasing a machine, there is a cost, at the maker's, or at the destination.

If the former, say the machine costs $400, freight in cartage, installation at new factory amount to another $100, making the first cost of the machine ready for work $500. We will presume its life is five years. Let us figure out the amount it has to earn to pay for itself and pay the owner six per cent. on his investment.

| | | | |
|---|---|---|---|
| First | year, $500 cost + 6% interest = | | $530 |
| Second | year, $500 less $100 deprec. = | $400, to | |
| | bear 6% interest = | | 24 |
| Third | year, $400 less $100 deprec. = | 300, to | |
| | bear 6% interest = | | 18 |





| | | | |
|---|---|---|---|
| Fourth | year, $400 less $100 deprec. = | 200, to | |
| | bear 6% interest = | | 12 |
| Fifth | year, $200 less $100 deprec. = | 100, to | |
| | bear 6% interest = | | 6 |
| | Total amount to be earned in five years | | $590 |
| Total amount to be earned in one year | | | $118 |

This amount divided by the number of working hours a year gives the hourly machine wage chargeable to the manufactured product, including all interest charges.

Suppose the year to contain 2,000 working hours; then,

$118 ÷ 2,000 = .059 hourly wage.

Capacity of each machine per day, 1,000 spokes.

Cost of 1,000 spokes = number of hours in day × .059, which ÷ 1,000 = cost per spoke.

In addition to this, we have depreciation, maintenance, general shop expense, to be pro-rated over the manufactured product.—*G. Farrar.*

(508) DEPRECIATION AND EXHAUSTION OF COAL MINES.

One of the principal considerations of those in charge of the finances in the coal mining business is the wasting asset feature, or gradual exhaustion of the quantity of coal to be mined.

Reserves must, of course, be established for the purpose of replacing machinery which will not admit of further repairs, or has become obsolete. In addition to this, every well-ordered coal mine will establish its reserve against exhaustion, and the question as to the best method of making this provision is of interest.

In the first place—as it is impossible to mathematically ascertain just how much coal there is to be mined—it is necessary to make an estimate of the quantity contained in the mine, and the number of years it will take to mine it.

Next—figure out as closely as possible the capital outlay involved, crediting same with the value of the land, buildings, machinery, etc., at what they may be expected to bring when the mine is abandoned.

Divide the sum thus obtained by the estimated number of tons of output, and the remainder will be the amount of each ton of coal actually mined.

## (509) DETECTION OF ERRORS.

It is very important in making the following suggestions to call particular attention to the fact that a Trial Balance is rarely out of balance because of a single error. There are usually several errors, and in cases of this kind the methods of detection suggested merely involve a waste of time. Where, however, a check system is adopted (such as described under that heading), and a daily proof of work maintained, these rules will be found of great value. The error will be located not only to one record or ledger, but also to the debits or credits relating to that book, and the difference may generally be discovered to consist of a single mistake. (See Controlling Accounts and Checking Systems).

It will also be found of assistance in making up the Trial Balance to draw off total footings instead of balances, thus permitting a convenient comparison with the records from which postings have been made. We recommend, therefore, the use of four column Trial Balances, debit and credit columns of total footings and debit and credit columns of balances.

In a cross entry journal post all the debits first and afterwards the credits.

In considering the best method of obtaining a correct trial balance, it should be remembered that prevention is better than cure, as the latter may be difficult and tedious notwithstanding the most ingenious rules and suggestions.

We will, however, treat the matter first from the point of view of a cure, to be applied to what are now generally known as "old style books," and will take up prevention later. The books are out of balance, and the problem is to locate the error.

1. Look carefully through the trial balance to see if a balance has been omitted, or has been entered on the wrong side.

2. Do not look through your postings to see if you can find the amount of the error unposted, unless you think you are familiar with such an amount. The required difference is generally made up of two or more errors.

### 3. EXAMPLES OF TRANSPOSITIONS.

Error $27.00.—May be $41.00 posted as $14.00; $52.00 posted as $25.00; $30.00 posted as $3.00; $58.00 posted as $85.00; $36.00 posted as $63.00; $47.00 posted as $74.00.

Error $45.00.—May be $94.00 posted as $49.00; $72.00 posted as $27.00; $61.00 posted as $16.00

Error $18.00.—May be $13.00 posted as $31.00; $35.00 posted as $53.00; $57.00 posted as $75.00.

### 4. DOUBLE SLIDE.

Error $435.60.—(Note.—From the previous examples it will be seen that the error consists of figures which added make the total of nine. We are now giving examples of errors which do not amount to nine, and which, therefore, must be divided by nine. The following examples all amount to eighteen if the figures are added together.)

$435.60 divided by nine amounts to $48.40. The error, therefore, may be $484.00 posted as $48.40. Should there be no such error discovered divide $48.40 by 11, when the amount obtained will be $4.40. The error, therefore, may be $440.00 posted as $4.40 cents. This error is called a "double slide."

5. Another example of "double slide" is as follows:—

Error $43.56.—$43.56 divided by 9 equals $4.84, but no error of $48.40 posted as $4.84 can be found. Therefore, we divide $4.84 by 11 and obtain the amount $0.44. Now look for $4.40 posted as $0.44.

6. If transpositions do not apply, look through the ledger for a balance omitted from the trial balance.





7. Look for an account closed but not ruled off, so that last month's balance has been taken again this month.

8. If the difference is an even number, it may be a debit posted as a credit, or a credit posted as a debit.

9. If the difference is 1 cent, or 10 cents, or $1.00, the error is almost certain to be in addition or subtraction in drawing off the balances.

10. Check the footings of the trial balance, and the carrying of the totals to the recapitulation sheet.

11. Scan the folio columns of all books of original entry to see if any posting has been omitted.

12. See that you have not forgotten to include in the trial balance the balance of cash account.

13. Look for some small account ruled off during the month to show a balance, but no balance brought down.

14. Carefully check over your sundry accounts receivable, and notes receivable accounts, as these two accounts are prolific sources of error.

15. If all these efforts to locate the difference are fruitless, check the additions of the ledger accounts, and the drawing off of the balances.

16. Then proceed to check the postings as follows: On a sheet of paper take off from the ledger the credit postings of cash, using a separate column for each week. Foot the columns, ascertain the grand total, and compare it with the total called for by the cash book.

17. If the totals do not agree, compare the totals by weeks in order to locate the difference.

18. If the totals agree, draw off the debit cash postings in like manner.

19. Also the journal debit postings and credit postings.

20. If these all agree, draw off the postings to the ledger from the sales book, and compare total with total of sales book.

21. It is supposed that the cash book and journal are self-proving so far as footings are concerned, but if the totals of postings from the sales book and the total of the sales book footings differ, the footings must be checked.

22. If a purchase book, or any other auxiliary record is kept, treat it in the same manner.

23. During the above checking process the error, or errors, must inevitably be located, and it is quicker and surer than checking individual postings, especially if the postings are "called off" to the book-keeper.

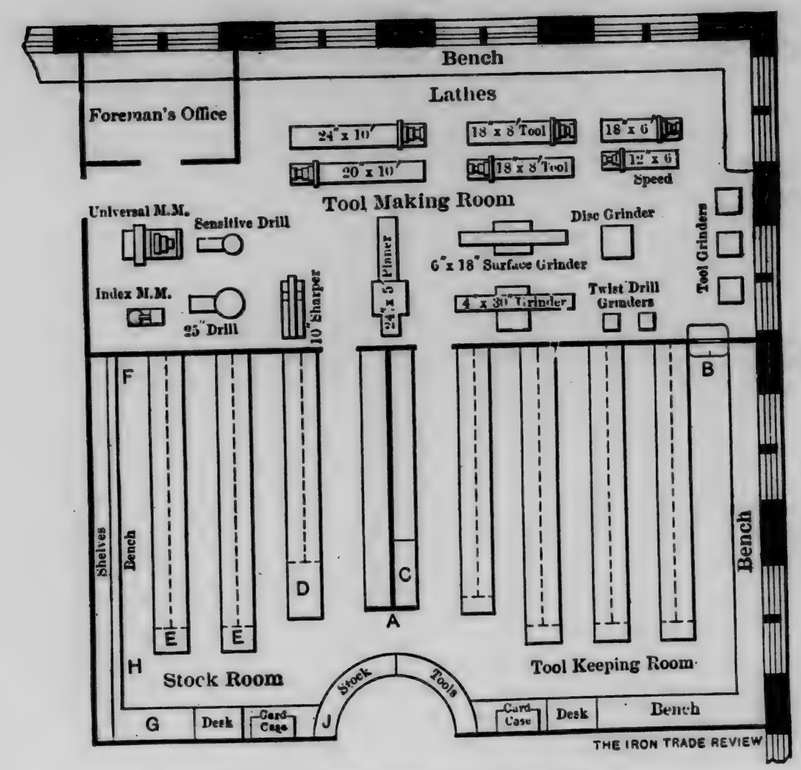
24. Also the error may be located in the cash book, or whichever book may be checked first, which will obviate the labor of checking anything else.

25. The above method of detecting errors is based on the supposition that the book-keeper keeps his ledger in good order, and distinguishes his posting from different books. If the book-keeper is a careless man, no rules are any good to him, and he must be left entirely to his own devices.

26. In drawing off the above analysis of the ledger, check each amount with a different colored pencil for each book from which postings are made. This greatly facilitates the detection of errors, and enables the book-keeper to keep exact track of what he is doing.

## (510) DIAGRAM.

(See Charts.) A method of exhibiting statistics in a graphic manner so as to call special attention to their significance. Diagrams are now extensively used, not only to illustrate business conditions, but also in connection with all kinds of scientific, mechanical or political investigations.




SHOWING ARRANGEMENT OF TOOL ROOM.

## (511) DIRECTORS.

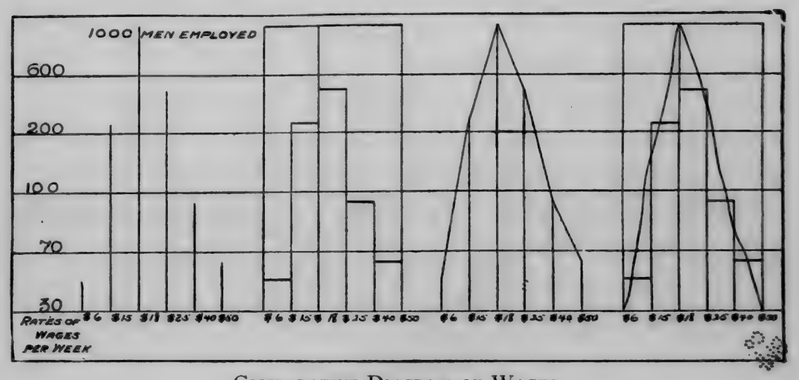
(See Stock Accounts.)

## (512) DISBURSEMENT RECORD.

A Voucher Record—a General or Petty Expense Record.








COMPARATIVE DIAGRAM OF WAGES.

## (513) DISCOUNT.

A per centum deduction from the principal for cash anticipations or other agreed terms.

### (514) CASH DISCOUNT.

### (515) SPECIAL DISCOUNT COLUMNS.

The customary practice of discounting trade bills for cash is now conveniently provided for in cash books by special discount columns.

Much has been said and written regarding the relative merits of posting the total amount of the bill to the credit of the customers' accounts, or the posting of cash and discount separately. After reviewing the matter very carefully and considering both sides of the question we are in favor of posting cash and discount separately as this method facilitates the audit of the books and also gives information in the ledger account which does away with the necessity of referring to the cash book for further particulars.

At the end of the month the total of the Discount column is charged or credited to cash, according to which kind of account is affected. The Discount columns are carried as memoranda until the end of the month, being deducted from cash receipts and cash payments in balancing the cash.

It is desirable to provide a separate discount column for each sales ledger where Controlling accounts are carried, as otherwise the items must be picked out at the end of each month in order to arrive at the necessary agreement.

The question has been raised as to whether the merchant is at liberty to anticipate a payment and charge the vendor with interest from date of anticipation to due date without the vendor's invitation or consent. We believe the general feeling of both wholesale and jobbing trade is that no such right exists. Extra datings are given to promote new business—to accommodate

customers, to provide necessary time for distant deliveries and to encourage early orders.

(516) COST OF CASH DISCOUNTS.

It is true that a bill drawn at 60 days' sight and discounted the same day two per cent. for cash, only costs the owner interest at the rate of 12 per cent. for the 60 days that he pays for the use of the money, but the allowance of two per cent. ten days from the date of the invoice forces him to pay interest for the use of the money for the 50 days' unexpired time at the rate of 14½ per cent. When paid within 15 days the rate is at 16 per cent. for the 45 days' free time. When the bill runs 30 days and the discount is allowed the interest paid is at the rate of 24 per cent. When the bill is 40 days old and discount taken, the interest is at the rate of 36 per cent. When 50 days have run by, 72 per cent. is demanded for the use of the money and when the remittance reaches the seller after 55 days, the seemingly little two per cent. is the equivalent of interest at the rate of 144 per cent. for the remaining five days' unexpired time.

(517) PURCHASE DISCOUNT.

(518) SALES DISCOUNT.

There has been considerable discussion in regard to the proper method of treating both Discount on Sales and Discount on Purchases, and after considering the matter very carefully, we have arrived at the conclusion that, while Discount on Sales is properly a selling expense, Discount on Purchases should be considered in Trading account, because it reduces the cost of production.

(519) DISCOUNT ON FREIGHT.

The question is frequently raised as to whether when goods are sold delivered but freight is not prepaid, the cash discounts should be deducted from the gross amount of the bill or from the net amount after freight has been deducted. When goods are sold delivered the freight is generally included in the price, *i. e.*, the price of the goods delivered is higher than the price of similar goods sold f. o. b. point of shipment. The shippers, therefore, frequently claim that cash discount should not be deducted from gross amount of invoice, but from that amount less freight, and in the coal and lumber business, where freight is one of the principal components of the amount charged for the goods, business usage appears to have decided that freight shall be deducted prior to taking off cash discount, as the freight is paid to the railroads in full. On the other hand, however, the purchasers of goods claim that when buying f. o. b. at destination, the question of freight does not concern them, and that in fact, in paying the freight in order to clear the goods they are making an advance on account of the shippers, on which advance they are entitled to interest.

It would seem that where freight is prepaid as an accommodation to the customer, cash discount should not be deducted from the amount thereof,





but wherever it is included in the price as an inducement to obtain the order, the customer would be acting perfectly within his rights in deducting cash discount, unless there was an agreement or understanding with the seller to the contrary.

(520) TRADE DISCOUNT.

Trade Discount is the deduction from list prices allowed to jobbers. In some lines of business a number of such discounts are allowed cumulatively, some being preferences to particular customers. Thus, in the hardware trade one customer will receive a discount of 75%—7½% and 5%, while another will be allowed 75%—7½-5% and 2½%. These discounts are always consecutively computed on the remainder.

Such discounts appear to be an unwieldly method of selling goods, but commercial usage governs the custom.

(521) BANK DISCOUNT.

Applies to loans and discounted notes, and is simple interest deducted in advance from the amount to be loaned or advanced. Thus, a note of $100 at six months from date would be discounted for $95 if the rate of discount were 10%. The rate of discount charged by a bank depends upon the value of the security offered and is a matter of contract between the bank and the borrower.

(522) TRUE DISCOUNT.

The equivalent of interest on present value to date of maturity, present value being such an amount as with interest to date of maturity added will equal the principal.

Soule says: "*The present worth* of a note or debt is the sum that remains after the true discount is deducted from the face; or it is the principal which, at the specified rate of interest and time, would amount to the face of the note or debt when it becomes due. For example, if we loan $500 for one year at 8 per cent., it will amount to $540. Hence we see that the present worth of $540, due one year hence at 8 per cent., is $500.00.

"The function or purpose of true discount is properly to determine what sums are to be invested to produce a specified amount at a given rate of interest and for a stated period of time. And in this respect it is the same as interest where we have the time, rate per cent., and interest or amount given to find the principal."

(523) **DISTRIBUTION.**

The method of carrying separate accounts with expenditures for statistical and comparative purposes, or providing separate columns in regular accounting records or statistical recapitulations. See columnar cash books and journals.

(524) EXPENSE DISTRIBUTION.

(525) PURCHASE DISTRIBUTION.

(526) SALES DISTRIBUTION.

These are either a section of regular records or special summaries. They form a part of all modern accounting systems devised for business of any magnitude.

### (527) DIVIDENDS.

See Stock Accounts.

### (528) DORMANT PARTNER.

A silent partner. One who takes no part in the management of a business, or one who is not known to the public as being a partner.

### (529) DOUBLE ACCOUNT BALANCE SHEET.

In no other commercial enterprise but a railroad, we suppose, would an arrangement of this kind be found satisfactory.

If capital subscribed amounts to so much, this capital is exclusively confined to capital expenditures. The capital receipts and capital expenditures are carried separately and shown on a separate Balance Sheet. The capital must not be used for revenue expenditures. Capital constructs the road, plant and equipment, builds the cars, and from nowhere does the money to start the business appear to come.

The railroad is opened to the public and the public supplies the revenue receipts which cover the expenditures in connection with running the railroad trains, depots, telegraph operators, etc., and also furnishes the profits, all of which are exhibited on a special Balance Sheet.

We do not believe this system is used by any railroad in the United States, and therefore submit it as a curiosity.

This system of preparing balance sheets is illustrated under the heading of "Balance Sheets."

### (530) DOUBLE AVERAGE.

See Averaging Accounts.

### (531) DOUBLE ENTRY.

That system of keeping books of account which requires a credit for every debit, and a debit for every credit, a perfect equilibrium or balance being thus maintained. The advantages of this system are that errors are thereby exposed and readily located and that the keeping of correct statistical records is greatly facilitated. Thus the surplus of assets over liabilities on the balance sheet will always, under the double entry system, be represented by a credit of like amount on the Profit and Loss Account.

As book-keeping by double entry consists entirely of debits and credits,





the Business College axiom which reads "debit everything you give and credit everything you receive" fairly expresses the principle which governs the art, it being understood that the business also credits itself with everything given, and debits itself with everything received. The great principle of Double Entry is—that every debit must have a corresponding credit. In order to carry out this principle, Double Entry in the old days revolved around a journal. In this journal every business transaction was recorded with its corresponding debit or credit.

If the transaction was a sale, it was first recorded in a sales book, and afterwards transferred to a journal with its corresponding credit to Merchandise Account. If the transaction was a cash receipt, it was first recorded in a cash book, and then transferred to a journal with its corresponding debit.

Double Entry, like other sciences, has been subject to evolution, so that, while still maintaining the principle, the corresponding, or balancing entries are now made in total instead of in detail, thereby achieving the same results with an immense saving of clerical labor. Thus, the balancing entries of sales, purchases, various kinds of expenses, etc., are now made by journalizing the totals at the end of the month, or posting such totals direct from books of original entry, and books of account are so arranged as to readily furnish these totals.

See Book-keeping.

### (532) DOUBTFUL ACCOUNTS.

See Suspense.

### (533) DRAFTS.

See Bill of Exchange (Bentley's "Corporate Finance and Accounting").

### (534) DRAFTING OFFICE RECORDS.

A method of designating and locating tracings.

Each tracing should be given a number, the numbers being consecutive, a separate number for each new tracing. It is understood that it is customary to use blue prints for reference instead of the original tracing, in order to save the wear and tear on the latter.

Provide a card index which will exhibit the tracing numbers and also the names of the tracings, by method of cross indexing. The illustration will clearly show the general arrangements.

There should be guide card sub-divisions showing each detail; as an example—have guide card showing valve stems, valve stem stopping box, etc., and a separate card for links of all sized cylinders.

On the cards themselves it would depend on the requirements of the business as to the details entered. See illustration.

### (535) DRESSMAKING BUSINESS COST SUMMARY.

In many dressmaking establishments prices are often quoted beforehand for each special order, and therefore some kind of cost record is found of

great value, not only as a guide to the party who makes the estimates, but also as a check on the estimates, so as to ascertain that they are being made with a due knowledge of the cost of material and labor entering into the goods manufactured, and that a due allowance is made for the profit that should be obtained.

The appended form of cost summary may contain suggestions for those of our subscribers who may be interested in this line of business.

COST SUMMARY FOR THE DRESSMAKING BUSINESS

| Date | Order No | Description | Materials Used | Rate per yard | Cost of Materials | Labor | Percentage of General Expense | Total Cost | Selling Price | Profit |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

## (536) DRUGS (RETAIL).

See Department Stores.

## (537) DRY GOODS BUSINESS.

In a wholesale dry goods business it is somewhat difficult to figure out as to how to cut down the work of billing and stock keeping. It is necessary to put down first the case numbers, the yards from each case, the quality numbers and the substitutes at times of one quality number for another, to keep track of the stocks in the stock record. For example, we sell to Jones & Co., two pieces of 350 velvet, one piece from 722. Of course these different case numbers must not appear on bill; only the following:

350 2 pcs. Velvet, 52 yd.
52 104 57½ $59.80

The book entry as it now appears would be—

644 52 yds. 350 2 pcs. Velvet, etc.
722 52 yds.

Is there not an easier method for keeping the stock? As it now stands, we sometimes substitute one quality for another, say 320 as 350. Of course the 320 part would not show on the bill, but must show on our book records.





ORIGINAL INVOICE — INVOICE NO. 3

DETROIT, MICH. JAN. 4 1906

GEORGE C. KAIFER
DAYTON, OHIO

TO M.J. VAN DAHLEN DR.

| OUR QUALITY | NO OF PIECES | DESCRIPTION | QUANTITY | PRICE | AMOUNT |
|---|---|---|---|---|---|
| 350 | 2 | VELVET | 52 YD | 37½ | |
| 350 | 2 | | 52 YD | | |
| | | | 104 | | 57 80 |
| | | | | | |

SOLUTION.

The following suggestions will, it is believed, overcome the difficulties now encountered:

Make your invoices in duplicate by use of carbon and keep the duplicate invoices in numerical sequence in a binder.

Make the duplicate invoices one and one-half inches wider than the originals, so as to admit of the insertion of the "case number" and "quantity" in the left hand margin of the duplicate without taking it from the typewriter. (See Forms 1 and 2.)

The carbon used should not be wider than the original invoice, thus leaving the left-hand margin of the duplicate open to view and uncovered and ready to be typewritten on.

Combine the "cash number" and "quantity." For instance, case number is 644 and the goods sold amount to 54 yards, it would be better and more concise to write same as follows: "64454 or 644-54." The first three figures of this number as you will perceive, denote the "case number" (644) and the remaining two figures of this number represent the quantity(54).

DUPLICATE INVOICE — INVOICE NO. 3

DETROIT. MICH JAN 4 1906

GEORGE C. KAIFER
DAYTON, OHIO

TO M.J VAN DAHLEN DR.

| CASE NO. & QUANTITY | OUR QUALITY | NO. OF PIECES | DESCRIPTION | QUANTITY | PRICE | AMOUNT |
|---|---|---|---|---|---|---|
| Y 64452 | 350 | 2 | VELVET | 52 YD. | 37½ | |
| 72253 | 350 | 2 | | 52 YD. | | |
| | | | | 104 | | 57 80 |
| | | | | | | |

**STOCK RECORD**

350 VELVETS

| PURCHASES | DISPOSED OF | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| CASE No. 644 QUANTITY 3750 YDS | INV NO. | QTY. | INV NO. | QTY. | INV NO. | QTY. | INV NO. | QTY. | INV NO. | QTY. |
| | 3 | 52 | | | | | | | | |
| DATE 2/1/06 | | | | | | | | | | |
| BUYER JOHN BROWN & CO. | | | | | | | | | | |
| DETROIT, MICH | | | | | | | | | | |
| PARTICULARS | | | | | | | | | | |
| THEIR QUALITY 625 | | | | | | | | | | |
| OUR - 350 | | | | | | | | | | |
| 75 PCS 3750 YDS @ 37½ | | | | | | | | | | |

Don't keep stock record in the old-fashioned book form. Use loose leaves for the purpose, drawn up like form attached, Form 3.

Each day take "duplicate invoice binder" and post to the "disposed" column, of the respective cases given in the stock record, the different quantities sold as shown in the duplicate invoices. Also insert the invoice number.

The above arrangement enables the accountant to combine order book and day book, and insures accuracy; by reason of the fact that there is no repetition of entries and does not require as much work in the keeping of the stock account.—*G. C. Kaefer.*

Another Suggestion.

The forms illustrated may also be interesting and instructive.

The same marked "Sheet No. 303" represents a sheet from a loose leaf stock book and gives illustration of two ways in which to keep the stock record.—*E. C. Hopkins.*

| | THE BEST DRY GOODS CO. OMAHA, NEB. FEB 24, 1906<br>SOLD TO MOORE & CO. FULLERTON, NEB | | | |
|---|---|---|---|---|
| CASE NOS.<br>644<br>722 | NO.<br>300 1 PC. VELVET 42½ YDS. 60 31.50<br>9 PCS. " 50 52<br>52-½ 48<br>52 50<br>51 49<br>51-½ 456 YDS. 62½ 285.00<br>$316.50 | | | |
| | OR IF SUBSTITUTION WAS MADE.- INVOICE AS FOLLOWS: | | | |
| CASE NOS.<br>632 SUB. 320<br>722 199 YDS.<br>712 SUB. 220<br>ON 257 YDS. | NO.<br>300 1 PC. VELVET 42½ YDS. 60 31.50<br>9 PCS. 50 52<br>52-½ 52<br>52 48<br>51 50<br>51-½ 49 456 YDS. 62½ 285.00<br>$316.50 | | | |





CARPETS

VELVET NO. 350 SHEET NO 303

| CASE NO. | | PURCHASED | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 644 | 75 PCS. JNO BROWN & CO'S #625 | 2-1-06 | 2-24-06 | 3-1-06 | 3-10-06 | 7-1-06 | | | | | | |
| | | 3750 YDS. | 52½ YDS | 104 YDS | 156 YDS | 3337½ YDS. | | | | | | |
| | | 37½ ¢ | 60¢ | 58¢ | 57½ ¢ | INVENTORY | | | | | | |
| 722 | 100 PCS. WM GREEN & CO'S #1732 | 2-5-06 | 2-24-06 | | | | | | | | | |
| | | 5217 YDS. | 456 YDS | | | | | | | | | |
| | | 41½ ¢ | 62½ ¢ | | | | | | | | | |
| 800 | 80 PCS. BENTON MILLER'S #88 | 3-1-06 | | | | | | | | | | |
| | | 422 YDS | | | | | | | | | | |
| | | 39¢ | | | | | | | | | | |
| | OR, IF DO NOT DESIRE TO USE SELLING PRICE MAKE ENTRY AS FOLLOWS | | | | | | | | | | | |
| 722 | 100 PCS. WM GREEN & CO'S #1732 | 2-5-06 | 2-24-06 | 3-1-06 | 3-10-06 | 3-12-06 | 4-3-02 | 4-10-06 | 4-12-06 | 4-30-06 | 5-1-06 | |
| | | 5217 YDS. | 456 YDS | 104 YDS | 156 YDS | 288 YDS | 550 YDS | 103 YDS | 879 YDS | 4707 YDS | 374 YDS | |
| | | 41½ ¢ | 9 PCS. | 3 PCS. | 3 PCS | 23 PCS. | 10 PCS. | 2 PCS. | 18 PCS. | 8 PCS. | 1 PC. | |
| | | | 5-10-06 | | | | | | | | | |
| | | | 1055½ YDS | | | SOLD | | | | | | |
| | | | 22 PCS | | | | | | | | | |

(538) **DUE.**

What ought to be paid; what may be demanded. It differs from owing in this, that sometimes what is owing is not due. A note payable a certain time after date is owing immediately after it is delivered to the payee, but it is not due until such certain time has elapsed.

At times the word "due" signifies a simple indebtedness without reference to the time of payment, while at others it shows that the day of payment has passed.

(539) **DUE BILL.**

A written or printed acknowledgment of indebtedness. An informal promise to pay, sometimes called an "I. O. U."

(540) **DUE DATES RECORD.**

A record sometimes kept of maturity of Accounts Payable in order to secure cash discounts. Such a record will include the name of the creditor, date of bill, amount, terms, due date.

Such a record is also frequently kept by placing the bills in an office tickler according to the terms and discounts allowed.

(541) **DUPLICATE.**

A copy. A carbon copy. (See Order Blanks.)

Duplicates are made to save the labor of rewriting or reproducing. In most retail stores all bills are made in duplicate or triplicate, one copy being given to the customer, and the others going to the book-keeping and shipping departments.

## (542) DUPLICATING DEVICES.

Our illustration shows an efficient compound bill and order form consisting of a set of twelve duplicates made at one writing.

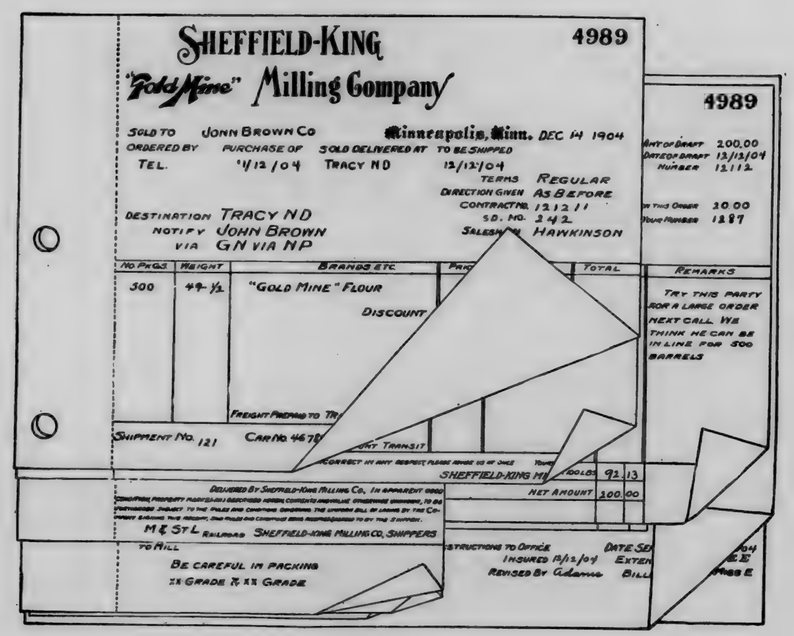
The set consists of—

Office Records

1.
2.
3.
4.
5.
10.
11.
12.

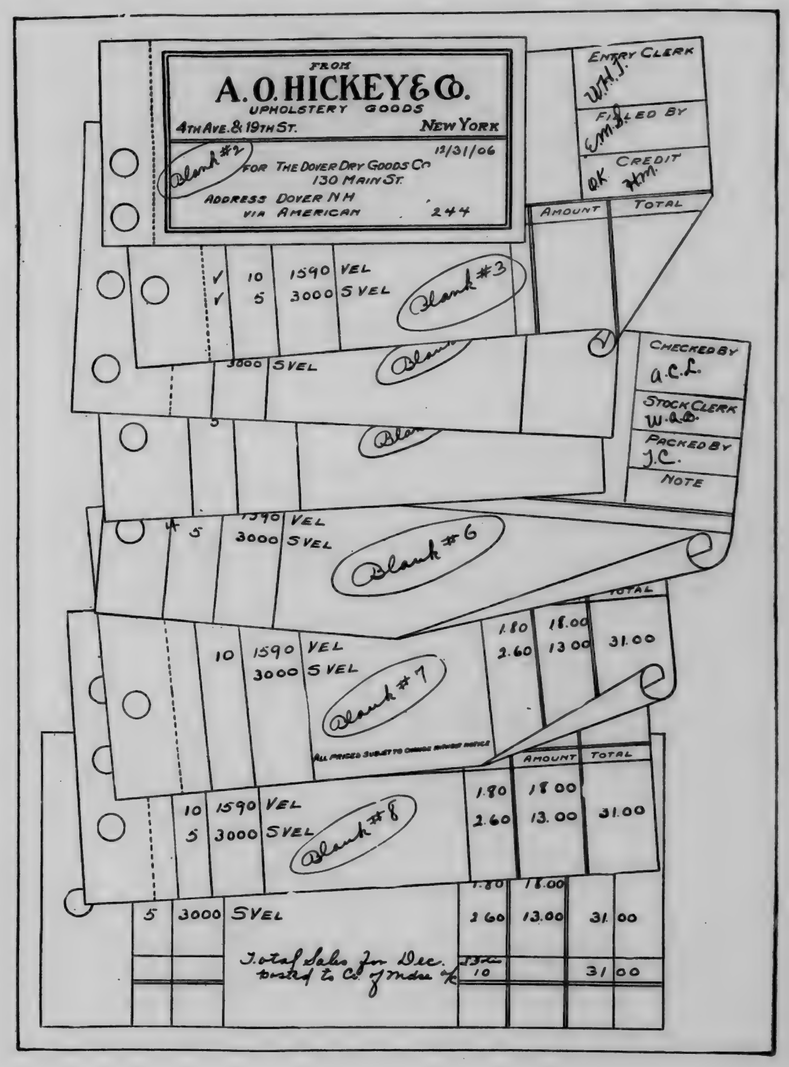
Factory Records

6.
7.
8.
9.








The sheets differ in length, width, ruling and some of the printed matter but by using an up-to-date billing machine everything is easily and accurately registered.

Note that each of the twelve sheets bears the same serial number in the upper right hand corner. This is not only for identification, but also for filing purposes.

One of the advantages of this arrangement is that certain information which does not appear on the top sheet, appears at the foot of some of the under sheets. This is accomplished by making the end sheets longer than the top sheet.

On page 779 is a combined charge sheet and billing system which has proved very satisfactory and is used in the same way as the previous illustration, through the medium of a heavy manifolding billing machine.

Blank No. 1 is the original order filled in by the traveling salesman and received by mail. This is not illustrated.

Blank No. 2 is the label for package or shipping instructions. Blanks No. 3, 4, 5 and 6 are identical. Blank No. 7 constitutes the invoice; No. 8 is handed to the ledger keeper from which he posts to the ledger; No. 9 is placed in a binder and forms a permanent bound record and also serves as a means of proving the sales postings.

## (543) EARNINGS.

The wages of an operator, clerk or other person employed at certain specified wages. This word is also sometimes used to define net profits either of an individual, a partnership or a corporation.

## (544) EMBEZZLEMENT.

The fraudulent appropriation to one's own use of the money or goods entrusted to one's care by another.

The fraudulent appropriation of property by a person to whom it has been intrusted or to whose hands it has lawfully come. It is distinguished from larceny in the fact that the original taking of the property was lawful or with the consent of the owner, while in larceny the felonious intent must have existed at the time of the taking.

## (545) EMPLOYE.

A person employed in the service of another whether permanent or not.

## (546) EMPLOYES' RECORDS.

These are various and voluminous. In some establishments more information is desired than in others, and the records are arranged accordingly. We illustrate an application blank, three regular factory forms of record and one office clerk record. The latter will be easily distinguished by the reference to education and business experience.





**APPLICATION FOR EMPLOYMENT.**

Date

Name

Address

Position Applied for

Last Place of Employment

Address

Employed as

Term of Employment Terminated

Reasons for Leaving

Salary $

References

Remarks

FRONT

NAME | ADDRESS | No. 1475

| AGE | SEX | MARRIED OR SINGLE | NATIONALITY. | REMARKS |
|---|---|---|---|---|
| | | | | |

WHERE LAST EMPLOYED | REASON FOR LEAVING LAST EMPLOYER

| COMMENCED | | DEPT | OCCUPATION | SALARY $ | | | PR WK |
|---|---|---|---|---|---|---|---|
| DATE | TRANSFERRED TO | " | " | " | | | |
| " | " | " | " | " | | | |
| " | " | " | " | " | | | |
| " | " | " | " | " | | | |
| " | " | " | " | " | | | |
| " | " | " | " | " | | | |

| VACATION | | | | WITH PAY FOR | | SERVICES DISPENSED WITH | CAUSE FOR LEAVING |
|---|---|---|---|---|---|---|---|
| DATE FROM | | DATE TO | | | WEEK | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| REFERENCES | TIME | WAGES |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

REMARKS

BACK

CAUSE OF DISCHARGE OR REASON FOR LEAVING

VERY GOOD WORKMAN
DESIRABLE — DISSATISFIED
OTHER POSITION — INCOMPETENT
MISUNDERSTANDING — BAD DISPOSITION
POOR HEALTH — UNSTEADY
DISORDERLY — LACKS AMBITION
MISCONDUCT
MISREPRESENTATION
INTEMPERATE
DOES NOT APPLY HIMSELF

Dept Mgr to check the above reasons for discharge or leaving, and promptly return this card to general office.

EDUCATION

BUSINESS EXPERIENCE

AGE ON ENTERING BUILD

RECOMMENDED BY

ENGAGED BY {LETTER / PERSONAL APPLICATION} TO

OBSERVATIONS

GENERAL IMPRESSION SPEAKS

NO. _____ DEPT. _____ ENTERED _____

NAME NATIONALITY AGE

ADDRESS RECOMMENDED BY

MARRIED OR SINGLE ENGAGED BY CARD NO.

CLASS OF WORK FOREMAN

REPORT OF PREVIOUS EMPLOYER

QUALIFICATIONS

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| INCREASE OF RATE | STARTED AT | PER {HOUR / DAY} | DATE TO | PER {HOUR / DAY} | DATE TO | PER {HOUR / DAY} | DATE TO | PER {HOUR / DAY} | | | |
| | DATE TO | PER {HOUR / DAY} | DATE TO | PER {HOUR / DAY} | DATE TO | PER {HOUR / DAY} | DATE TO | PER {HOUR / DAY} | | | |

DATE OF LEAVING REASON (See other side of this card)

DATE DISCHARGED

REINSTATED

FRONT





PRIOR EMPLOYMENT

REPORT OF REFERENCES

EMPLOYED

ASSIGNED TO DEPT.

SALARY

BACK

NAME IN FULL MARRIED OR SINGLE

DATE OF BIRTH 19 DATE LEFT SERVICE

DATE EMPLOYED 19 CAUSE OF LEAVING

WHERE EMPLOYED

RATE PER DAY OR MONTH

EMPLOYED AS

| PROMOTED | | RATE CHANGED TO | |
|---|---|---|---|
| DATE | OCCUPATION | DATE | PER DAY OR MONTH |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

RECORD FOR THE TWO YEARS PRECEDING DATE OF EMPLOYMENT

| NAME OF EMPLOYER | WHERE EMPLOYED | OCCUPATION | DATE EMPLOYED FROM | DATE EMPLOYED TO | CAUSE OF LEAVING |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

DAILY REPORT OF PATIENTS TREATED BY MEDICAL DEPARTMENT OF THE TRENTON STEEL CO.

Trenton, N. J.....190..

| Office No. | Hospital No. | Name | Age | Occupation | Nature of Injury |
|---|---|---|---|---|---|
| ..... | ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... | ..... |

Surgeon.....

TRENTON STEEL COMPANY.

ACCIDENT REPORT.

Dr.'s Report.

Name and Age .....
Residence .....
Dependents .....
How Long Employed by Company .....
Nature of Injury .....
Cause of Injury (State Details Fully).....
.....
.....
.....
Nature of Machinery .....
Condition of Machinery .....
Condition of Premises .....
How Long Employed in This Capacity .....
What Did Injured Say Regarding Accident? .....
.....
.....
What Did Witnesses Say? .....
.....
Names and Addresses of Witnesses .....
.....
.....
Rate of Wages of Injured .....
Remarks .....
.....
.....

| OPEN HEARTH DEPARTMENT, Card No. 17. | | | |
|---|---|---|---|
| 1467 | | Broken Arm, (Smith) | 1/4/'07 |





## (547) EMPLOYES INJURED.

There are throughout the United States a great many large manufacturing concerns employing thousands of men, several of whom receive injury more or less serious every day. It is unfortunately supposed by the public that these injuires are concealed and not properly attended to. The attempts at concealment are undoubtedly injudicious and tend to excite an unnecsary prejudice against the corporations.

These corporations, however, keep a very concise record of everything of the kind that happens and their treatment of the injured men cannot be criticised.

There is usually a chief surgeon who has as many assistants as he requires. There are stretchers, a hospital room, and every possible attention is given to the injured man.

The regular system of records is as follows:—

Chief Surgeon's Report
Accident Report.
Departmental Reports.

## (548) ENDORSED BONDS.

A term used on the Stock Exchange to describe bonds endorsed by transfers, assignments, releases, etc.

## (549) ENTRY.

The act of setting down the particulars of a sale, or other transaction, in a merchant's or trademan's account books; such entries are in general prima facie evidence of the sale and delivery, and of work done, but unless the entry be the original one, it is not evidence.

### (550) ENTRY CLERK.

The clerk who enters the orders or sales in order book or sales journal.

## (551) ENVELOPE SYSTEM FOR WHOLESALE LUMBER BUSINESS.

Most of the lumber sold is at a delivered price, often thousands of miles away from the point of production, and the item of freight is, therefore, of great importance.

There is a regular schedule of shipping weights for all classes of each kind of lumber, as for example, Fir:

| | |
|---|---|
| Flooring weighs | 2,000 lbs. |
| Boards S. 1 S. weighs | 2,500 lbs. |
| Bevel siding weighs | 700 lbs. |
| Dressed timber weighs | 3,000 lbs. |
| Rough timber weighs | 3,300 lbs. |

When a manufacturer ships stock for a wholesaler, he guarantees that the lumber he ships will not exceed the schedule weight, if it does the shipper will have to stand the additional cost of freight.

A. K. ARKLEY LUMBER CO.

ORDER. SHIPMENT.

Number ..... Number .....
Date ..... Date .....
Date Rec'd ..... Car .....
Customer's No. ..... From .....
Salesman ..... Invoiced .....
For .....
Rate .....Ship to .....
Route .....
.....
.....
.....
.....
.....
Note No. .....$.....Date Total.....
Draft No. .....$.....

SETTLEMENT.

Freight $.....
Discount $.....
Cash $.....
..... $..... Inv. $.....
Net Proceeds $.....
Est'd wt.....Est'd fr't.....
Act'l wt———Act'l fr't———
.....@.....$.....
.....@.....$.....
Bought of .....
Transit to .....
Date .....Terms .....
Amt. Invoice - $———
Discount - - $.....
Advance - - $.....
Balance - - $.....
.....Freight $———
Cost $———
Loss $——— Gross Gain $———

EXPENSES.

Commission .....
Interest .....
Exchange .....
.....$.....
.....$——— $———
Net Gain $———
Re-Consigned .....

THE ENVELOPE, FORM 12.





In addition to keeping a regular set of books it has been found very convenient and in many cases absolutely necessary to keep a separate record of each shipment, one that will show the individual history of each and every car shipped, and the illustration shows an envelope which is in use in many offices for this purpose.

In looking at the envelope it will be seen that on the left hand side is the heading "Order" and a blank left for the number, date, date received, customer's number, salesman, customer's name and shipping point, freight rate and shipping directions. Below these items are several lines on which the order is copied.

Below the third heavy line on the envelope we find a blank space for the name of the mill from whom we get the stock, also a space for the date and terms of the purchase.

After we have received the order from our customer and placed our order with the mill, these blanks are filled in and the order from the customer together with a copy of our order to the mill and any correspondence relating to the order are placed inside the envelope, it is then filed away according to order number until the stock is shipped.

When we get the mill invoice showing the amounts shipped, etc., we make out the invoice to our customer and save a copy of it to put inside of the envelope. On the face of the envelope we fill in the blanks under the heading "Shipment" the number, date, car number, point shipped from and the date invoiced. Below the name of the mill from whom we purchased the stock we insert the amount of the mill's invoice to us, the discount, and the amount advanced. We also insert in the place provided (see illustration) the estimated weight and the estimated freight on the shipment.

As the wholesalers are not all men of unlimited means, it requires some outside capital to pay the mills 90% cash on their invoice and most of the wholesalers have an arrangement with their banks to make a note for the amount required and have the bank advance the money. On the envelope will be seen places on which to write the number and amount of the note.

The mill's invoice to us and a copy of our invoice to our customer is then placed inside the envelope and it is filed away according to shipment number until we get settlement for the car.

When our customer pays us for the car we write a tabulated statement of his credits on the envelope under the heading "Settlement" so much freight, so much discount, and so much cash, etc.

The freight bill always accompanies the customer's settlement and from it we fill in the space left for actual weight and actual freight and below this the underweight or the overweight as the case may be.

The mill is then paid the balance of their invoice plus the underweight or less the overweight, and the amount paid is written on the lines provided. The envelope now shows the cost of the car and we extend the amount in the blank provided, and deducting this from the net proceeds as shown above gives us the gross gain. Under the head of "Expense" we write our salesman's commission, interest on our note, exchange and have two lines for sundries.

The sum of the expenses can now be extended and deducted from the gross gain, showing the net gain.

It would be well to say that by keeping a copy of our invoice in the envelope we dispense with the use of a salesbook. We journalize our sales and for explanation of the journal entry we write a combination of the car number, the order number and the shipment number.

### (552) EQUATION OF PAYMENTS.

See Averaging Accounts.

### (553) ERASURE.

The obliteration of a writing.

The use of erasures in books of account for the purpose of correcting errors should be steadfastly discouraged. If an amount has to be changed on a cash book, journal, or ledger, the particulars of the change should accompany same, so that the reason of the change is readily apparent. Some complain that the correction of entries in a ledger mars its appearance, but the fact remains that thereafter an erasure is generally regarded with more or less suspicion by those who may find it necessary or desirable to look over or examine the books, and it is sometimes exceedingly difficult for a book-keeper to make a satisfactory explanation as to why such and such an entry was erased and some other figure substituted.

### (554) ESTIMATED PROFITS (TREATMENT OF)

At the end of the fiscal year it is natural that the officers of a corporation should wish to make the best possible showing of the results of their management, and to avoid any comparison with previous years' results which may appear unfavorable. For this reason the secretary, in making up his statistical statements, scans with a covetous eye the record of unfilled orders, or unfinished contracts, and takes serious counsel with himself as to how much anticipated profit he can include without jeopardizing his reputation as an accountant.

The subject seems to be divided naturally into four main sections—

1. Unfilled orders.
2. Coods sold for future delivery.
3. Uncompleted orders.
4. Unfinished contracts.

An unfilled order may be defined as an order waiting arrival of goods necessary to fill it. The sale has been made, but the jobber is temporarily out of stock of the article ordered. A bill has been received from the manufacturer advising shipment, but the goods are not yet to hand.

In this case the secretary is justified in considering the profit on the unfilled order as earned when the sale was made, but he must be careful not to credit sales account with the total of such unfilled orders unless he also debits purchase account with the total cost.





In the case also of manufacturers' agents who obtain orders on commission —the manufacturer shipping the goods—the commission is earned when the sale is made, and the order placed with the manufacturer, as the agent has no responsibility in connection with filling the order. It is usual for such agents to render a periodical statement to the manufacturers showing sales made and commissions due, including only those sales of which the manufacturers have advised shipment, the agents' books being made up to correspond with the periodical statements. In order to include these current profits (not yet charged to the manufacturers) in the statement of the year's revenue. it may be found convenient to open an account with "unshipped orders," charging this account with commission earned on such orders and crediting profit and loss. Then, as the orders are shipped, the commissions can be charged to the manufacturers and credited to unshipped orders account.

Goods sold for future delivery differ from unshipped orders in that the former are not required until a certain specified time, and the profit made on such sales should, therefore, fall within the period fixed for delivery. Where, however, goods are contracted for some time ahead to make sure of delivery at a certain date, and such goods are actually manufactured and stand ready for shipment on the given date—it is reasonable to take credit for the profit on the sales, although the goods are neither shipped, nor billed.

But where a coal merchant, for instance, contracts to furnish a certain quantity of coal within a given period at a certain price per ton—the profit should be distributed over the various deliveries; and when a yearly contract is taken for advertising in a monthly magazine the profit from such contract is distributed over the twelve monthly insertions of the advertisement.

Uncompleted orders in the factory are a source of very considerable trouble to the secretary because of the difficulty of estimating correctly the proportion of profit on the proportion of work done. In most manufactories, where goods are manufactured for the general trade, it is customary to include the cost of work in progress as an asset and to take credit for profit only on completed articles. Where, however, the complete cost of an article is known and the selling price is fixed by adding a certain percentage to cost—there is no reason why that percentage of the work actually accomplished should not be included in the year's profits.

With unfinished contracts it is still more difficult to deal, for the reason that it is frequently troublesome, and sometimes impossible, to accurately estimate the cost of work necessary to complete. When contracts are taken for building, iron, or achitectural work, it often happens that certain conditions are overlooked when figuring on the contract and that ultimately the work results in a loss. Only when such a contract is approaching completion is it perfectly safe in a great many cases to take credit for the anticipated profit, and the proper method is undoubtedly to estimate the cost of the work remaining to be done, add to that amount the cost of work already completed (which will give the total profit on the contract), add proportion of profit to cost of work remaining to be done and treat this amount as a reserve against the contract price, which has been credited to the contract account.

In the case of contracts the work on which is not far advanced, and in regard to which the cost of the balance of the work cannot be accurately estimated, the actual expenditure should be treated as an asset, and no provision made for estimated anticipatory or prospective profits on the balance sheet.

It should always be borne in mind that the annual financial statement should make an accurate presentment of the condition of the business, and that any speculative or unjustifiable inflation of income, by the inclusion of over-estimated, anticipated or prospective profits, will but react upon the showing of the business for the following year, and throw discredit upon the judgment of the officer responsible for the inaccurate statement of the previous year.

### (555) EXCHANGE.

The charge made by a bank for clearing country or foreign checks, representing cost of collection.

The fluctuation of exchange may be explained as follows:

For small sums, say for $500 or less, New York or Chicago exchange always sells at a premium of about 0.1 per cent. This is to pay the bank for its trouble and for the expense of shipping the money when its balance at New York or Chicago gets low. Banks usually buy New York or Chicago drafts at par, that is, at their face value, thus making no charge for cashing them.

But on large sums the rate of exchange varies. If the San Francisco banks owe the New York banks $1,000,000, they must send that amount by express, an expensive proceeding. If a man in San Francisco at that time wished to buy a draft on New York for $10,000 they would charge him more than usual because they would have to express that much more to New York. But if a man in New York wished to buy a draft on San Francisco he might buy it for $9,999 or less, because they would get their money at once, and the risk and expense of transmitting it would be saved.

### (556) EXCISE.

The duties levied on the manufacture and sale of domestic commodities or articles intended for home consumption.

### (557) EXPENSE.

A Revenue account to which is debited expenditure from which no direct returns are expected.

Any factory expenditure which does not come under the heading of prime cost.

Different kinds of expenditures should not be dumped into a General Expense account any more than different kinds of purchases, sales, goods returned, etc., should be dumped into a Merchandise account. The intelligent merchant requires a comparative record of the different classes of his expenditure, which will show if they are justifiable considering the volume of business, or if they are excessive and the result of a careless and lax administration.





### (558) ORGANIZATION EXPENSE.

### (559) PROMOTION EXPENSE.

Expense incurred in the organization of a corporation, such as promotion, discount on stock sold, etc.

This expense is generally carried on the books as a fictitious asset, being gradually extinguished by charging off a certain proportion annually. The justification of this method of treating promotion expense is that it is not incurred for the particular benefit of the first year's business, and it is only fair, therefore, to spread the cost of organization over several years.

### (560) GENERAL OFFICE EXPENSE.

Separate accounts should be kept with advertising, postage, salaries, express, selling expenses, etc., so that the fact of their being normal and not extraordinary may be ascertained at any time without the trouble of analyzing the Expense account by drawing off lists of the different items under their separate headings.

### (561) ADMINISTRATIVE EXPENSE.

Expenditures in connection with the management of a business.

### (562) SELLING EXPENSE.

Expenditures in connection with salesman's commission, etc.

Administrative and selling expense should not be included in cost of production with which it has nothing whatever to do. The selling expense, of course, adds to the expenditures of the business in disposing of the goods but this is an entirely different department.

It is important to distinguish between shop expense and administrative or selling expense as it considerably affects the value of comparative statistics in relation to actual cost of production by establishing incorrect standard units.

### (563) DEPARTMENTAL EXPENSE.

Where a business is divided into departments, the cost of administration may be pro-rated according to the volume of business done. If, for instance, certain employes are engaged in working for separate departments and an accurate account cannot be kept of the time spent by each employe in each department, then the cost of their services may be pro-rated according to the amount of turnover of each department. Such percentages are frequently computed on gross sales, but it is considered preferable and more equitable to compute them on the turnover.

### (564) EXPENSE ADJUSTMENTS.

If we have paid insurance and there are several months yet to run we credit Insurance account when closing the books and debit Profit and Loss account with the amount actually earned to date by the insurance company

and carry the balance of the Insurance Expense account on the Balance Sheet as an asset.

(565) EXPENSE JOURNAL.

Expense accounts are generally sub-divided as much as possible so that it may readily be seen how much has been expended on each particular kind of expense. In a great many businesses only one column is carried in the Cash Book or Journal for general expense, and a separate book is kept in which the distribution is made as per illustration.

Expense Journal.

| Month | Total | Office Supplies | Printing | Law Costs | Travlg Expense | Commission | Telephone & Telegraph | Rent, Light & Heat | Repairs | Taxes | Postage | Special Reports | Salaries | Freight | Express |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | | | | | | | | | | | | | | | |
| February | | | | | | | | | | | | | | | |
| March | | | | | | | | | | | | | | | |
| etc. | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

(566) EXPENSE LEDGER.

In some large businesses what is termed the "General Ledger" is used exclusively for "Expense Accounts."

(567) ESTABLISHMENT EXPENSE.

A term referring to all expenses of manufacture outside of prime cost. The latter consists of raw material, supplies and direct labor. "Establishment expense" therefore would include rent, light, heat, power, insurance and the salaries of the store-keeper, receiving clerk and general foreman or general superintendent, etc.

A somewhat new term for this class of expense is "Dead Weight Expense," this title being used because many of these charges do not vary much whether any work is being done in the factory or not.

"The question as to what basis should be used for the distribution of the direct expense, and the foolishness of distributing such expense under normal manufacturing conditions, over either the cost of raw material or the cost of raw material and labor combined, could not be better illustrated than by the following extract from a recent work on the subject:





DIRECT COST OF CONTRACTS.

| | No. 1. | No. 2. | No. 3. | Total. |
|---|---|---|---|---|
| Raw material | $2,000.00 | $2,000.00 | $2,000.00 | $6,000.00 |
| Direct labor | 1,000.00 | 2,000.00 | 3,000.00 | 6,000.00 |
| Total | $3,000.00 | $4,000.00 | $5,000.00 | $12,000.00 |

"If it is assumed that the total establishment expenses amount to $2,400, it is evident that these expenses are at the rate of 40 per cent. of both the cost of the labor and of the raw material, and to 20 per cent. of the cost of the labor and material combined. If it is assumed that the contract price for each of the contracts is $3,570, $5,040 and $6,510 respectively, then giving effect to the three methods of treating establishment expenses, the following statement shows the net profit in each case:

1. CHARGING EXPENSES ACCORDING TO THE COST OF LABOR.

| | No. 1. | No. 2. | No. 3. |
|---|---|---|---|
| Raw material | $2,000.00 | $2,000.00 | $2,000.00 |
| Direct labor | 1,000.00 | 2,000.00 | 3,000.00 |
| Expenses—40 per cent. of labor | 400.00 | 800.00 | 1,200.00 |
| | $3,400.00 | $4,800.00 | $6,200.00 |
| Price | 3,570.00 | 5,040.00 | 6,510.00 |
| Profit | $170.00 | $240.00 | $310.00 |

2. CHARGING EXPENSES ACCORDING TO THE COST OF RAW MATERIAL.

| | No. 1. | No. 2. | No. 3. |
|---|---|---|---|
| Raw material | $2,000.00 | $2,000.00 | $2,000.00 |
| Expenses—per cent. of material | 800.00 | 800.00 | 800.00 |
| Direct labor | 1,000.00 | 2,000.00 | 3,000.00 |
| | $3,800.00 | $4,800.00 | $5,800.00 |
| Price | 3,570.00 | 5,040.00 | 6,510.00 |
| Profit | $230.00 (Loss) | $240.00 | $710.00 |

3. CHARGING EXPENSES ACCORDING TO THE COST OF RAW MATERIAL AND LABOR COMBINED.

| | No. 1. | No. 2. | No. 3. |
|---|---|---|---|
| Labor and raw material | $3,000.00 | $4,000.00 | $5,000.00 |
| Expenses—per cent. of labor and material | 600.00 | 800.00 | 1,000.00 |
| | $3,600.00 | $4,800.00 | $6,000.00 |
| Price | 3,570.00 | 5,040.00 | 6,510.00 |
| | $30.00 (Loss) | $240.00 | $510.00 |

"It will be observed that by the first method the profit is at the rate of five per cent. on the total cost, which is equivalent to a rate of 4.76 per cent. upon the price. By the second method the first contract shows a loss of $230 and No. 3 contract a profit of $710, and by the third method a loss of $30 on the first contract and a profit of $510 upon the third contract. On the assumption that the first is the correct method of charging the establishment expenses, the results show how important it is to have a correct method of charging establishment expenses because by the second and third methods a loss is shown upon some contracts and an inflated profit shown upon others, whereas these contracts are all equally remunerative. It will be observed that in the case of No. 2 contract, where the cost of the raw material and of the contract labor are the same, there is no difference in the profit shown by the three methods.

The expense of a manufacturing establishment does not increase or decrease according to the price of the raw material, but it does vary according to the amount of labor that is to be spent on producing the finished article.

Note the wisdom of the remark calling attention to the fact that in No. 2 contract, the cost of the raw material and labor being exactly the same, the proportion of general expense will be the same whether computed on one basis or another.

### (568) SHOP OR FACTORY EXPENSE.

See second definition. This expense is distributed over completed orders and also over work in process when inventory is taken and the books are closed.

By "Factory Expense" we mean those items of cost which, while they cannot be charged to specific jobs, nevertheless add to the cost of articles manufactured. In Factory Expense we include such items as insurance, taxes, general factory supplies, fuel and light, the salary or wages of superintendent, factory clerks, engineers, fire-men and general laborers who connot be otherwise classified. It is sometimes the custom to separate Factory Expense and general indirect labor, placing in the latter division the labor costs above specified. Whether or not this division is made, is immaterial, as it finally resolves itself into a general factory expense.

### (569) FACTORY EXPENSE IDLE.

Some cost accountants advocate charging the expense of factory capacity idle to an account called "Factory Expense Idle." Thus it is proposed to keep the cost of the product of the factory operated and the cost of the factory idle separate from one another.

### (570) PRODUCTIVE EXPENSE.

Any expense that can be charged to specific jobs, therefore entering into prime cost.





### (571) MATERIAL EXPENSE.

Any expense connected with the care of stores and supplies, such as purchasing and handling material both raw and in the process of manufacture.

### 572) STORE EXPENSE.

Expense incurred by the shop organization on account of the store, such as merchandise drafting, etc., which is transferred periodically to Store Expense.

### (573) MACHINE EXPENSE.

Expense incurred in the regular manufacture of goods.

The "Machine Unit System" is a system whereby machine expense may be readily assessed as a loading on labor, in costs in detail, giving the correct proportion of expense in each case as follows:

By dividing and subdividing machine expense by analysis and estimate until it is all assessed against a machine or bench of the productive class.

By averaging the machine units for same kinds of machines, attaching class letters to each machine of the same kind and causing these letters to be marked on the time tickets with the labor giving the hours of the machine operation with a description of the job.

By estimating the loading on each time ticket by multiplying the hours by the machine unit during the period for which the machine expense is known or computed.

### (574) POWER EXPENSE.

Power expense is divided by estimate or test on each machine and class of bench work in each department.

Electric current is assessed in proportion to results from tests against each machine in cases where the motor is charged to the machine.

Power assessed against the non-productive machines is finally disposed of with the other expense items assessed against these machines.

### (576) RENT EXPENSE.

This expense is assessed at a uniform rate per square foot upon all benches, erection areas, and machines of both classes. The areas are based upon a carefully measured floor space which includes the projected obstructive area of each machine and necessary space for its operation and maintenance. Vacant space is divided in proportion to that assessed against producing units in the manufacturing departments. Tool expense is divided by estimate and analysis. Sundry expense requires an investigation into its actual uses. After dividing by departments, subdivisions are made between benches and machines and finally a division is made between different kinds of bench work if more than one kind exists and machines also.

(577) UNPRODUCTIVE EXPENSE.

All expense that cannot be charged to any specific job.

(578) DIFFUSED EXPENSE.

That class of expense which is distributed or pro-rated according to average percentages.

## (579) EXPERT ACCOUNTANT.

One proficient in the science and practice of accounts.

## (580) EXECUTORSHIP ACCOUNTS.

All who have ever had anything to do with the administration of an estate know that the responsibilities are grave ones, and that in the majority of instances the office is a thankless task. It is also well known that as a rule executors and administrators get little or nothing for their services, unless it be specified in the will that the trustees are to be allowed either a specified sum or fair remuneration for their services, otherwise actual expenses are the limit that can be claimed. Although the executor can get nothing for himself for work on account of the estate of which he is the trustee, yet he is always empowered and has the right to engage the services of a solicitor or accountant to do the work. They may be paid, but not their employer. The keeping of the accounts, and the preparation of the necessary statements, is work that may be given over to the accountant, and the executor must become responsible for the correctness of the work of his book-keeper. It is obvious, therefore, that if the work is to be well done and properly, that the accountant must have a thorough knowledge of the laws and principles underlying accounts of this nature. Heretofore it has been oftener the case that the preparation of accounts and the proving thereof have been the work of the attorney rather than of the accountant, but it is now becoming understood that this is peculiarly the province of accountancy, and reports by expert accountants are becoming more common, and are, especially in England, recognized and acted upon by the courts. Judges do not hesitate to accept the findings and reports of members of the Institute of Chartered Accountants, and place upon such reports the stamp of their approval.

It would be difficult to prepare a paper which would cover in detail the laws of the various states of the union, and for this reason it is well perhaps if in this case the principles governing the keeping of the account shall be stated only in a general way, leaving the detail to be worked out by the accountant according to the laws and rules of the particular state in which the will is probated.

The first duty of the executor is, of course, the proving of the will or the taking out of letters of administration. This just means that the executor places on record evidence of his rights in the handling of the estate or property of the deceased. An inventory of the property is filed. This covers the real and personal estate, and the latter takes in everything not covered by the





former, as cash in hand and in bank, household effects, stocks or funds, rents of freehold or leasehold property due at death, life insurance policies, proprietory shares in public companies, or private companies, with dividends due. money invested in mortgages or bonds and interest thereon, good will, stock in trade. book debts, bonds and bills, farming stock and all other personal property.

About the only book that the average executor keeps is a cash book, which shows receipts and payments, but with particulars so vague and indistinct that very often the work of preparation of the accounts is difficult and perplexing. No rules are anywhere laid down for the exact manner in which accounts of this class are to be kept, and because of the fact that the executor's work is generally a labor of love, it is scarcely to be wondered at if the accounts are loosely and carelessly kept. In an ordinary estate where there are not many varied sources of income to deal with, or much real estate to look after and manage, and but few heirs amongst whom distribution is to be made, for the purpose of keeping the accounts up to the preparation of the final accounting, a simple cash book will suffice. The cash book should show on the debit side, in columns, and with full details, the amounts realized from the sale of properties and securities as principal, and the income, and if the estate runs for a considerable period, investments. On the credit side also use columns, as many as are necessary, one for expenses, one for debts, one for investments, and one for payments to legatees and heirs. I recommend the use of total columns on both debit and credit sides, in which to carry the total of both debit and credit with every entry.

For larger estates it becomes necessary to keep the accounts in a more clear and concise manner than is possible with the simple cash book. The simpler the accounts are, the better, so long as they contain all the data that is necessary. A cash book and ledger will answer the purpose of any estate, with subsidiary books, as for recording rents, bills and mortgages receivable, and whatever other books the nature of the estate may require. I omit the journal for the reason that it is particularly desirable that the fullest explanations shall be made in the books of original entry, and that the ledger and cash book shall contain these, so that in referring to any of the transactions of the estate recourse will not be necessary to any other book. One authority, in dealing with executors' accounts, suggests as advantageous the making of a preliminary draft of the arrangement of the accounts. In the process of your work you are almost sure to meet with items requiring explanation before you can decide to which particular account they should be placed, or what proportion of them is capital and what income. You will be indeed fortunate if in the course of your work, you do not find it necessary to make alterations and corrections. And for this purpose he suggests two ordinary cheap books, with paper binding, and both ruled alike, that is, in the form of an ordinary cash book with double cash columns, using one for the cash book and the other for the ledger.

As in the opening of any kind of a business, the terms and conditions and material which form the opening accounts of the business should be set forth in

full, so with the accounts of an estate, the will should be carefully scanned, and an abstract, or indeed the whole will might be copied into the beginning of the cash book or ledger. Besides this, it is well to enter the date of death of the testator, date of grant of probate, the names and addresses of the legatees, the executors, and such other information as you may be able to obtain. Such a proceeding as this will effect a wonderful saving of time afterward, especially if the trust be one of long duration. A copy of the inventory should be written into the cash book following the particulars above set out, after it has been verified as to its correctness, noting any discrepancies. The opening entries will then be ready to be made in your books. In the cash book, which is in reality also a journal, you credit capital and charge the various accounts of which the estate is composed. Separate accounts should be opened for each parcel of real estate, and opposite it should be placed the incumbrance, if any exist, against it. The capital account should show the total estate of the testator, and should agree with the inventory. As happens frequently, certain parcels of the real estate may be willed directly to the legatees. Having credited capital account with these, in order to show the condition of the estate at the time of death of the testator, it becomes necessary to make a further entry, crediting capital account and charging the legatee. Having gathered together all the materials mentioned above, the books should now show and contain an account of the assets of the testator, with which the executors have to do. The next to proceed with is the dealings of the estate, which comprise the transactions of the executors, and as to these I cannot do better than quote shortly from a paper on this subject recently prepared and read by the president of the Institute, with whose views I coincide.

As the transactions of the executors consist entirely of receipts and payments, they appear in the form of the cash account, the entries being made in the order of date on which the transactions occur. The first entry will be cash in the house. Then following will come the sum received in payment of the back debts, proceeds of shares and other investments realized, also rents and dividends, interest, etc., received. These are income. Cheques drawn on the bank are also receipts from the bank, being the money drawn out to discharge debts. The use of the columnar cash book will save considerable labor, especially as all receipts should be paid into the bank, and all moneys paid by cheque. Next on the credit side will appear all payments made by the executors on account of the debts of the deceased, or for which his estate is liable. There should be a careful keeping of vouchers for all the payments, and a division should be kept as between payments of accounts incurred previous to death or following, in order that they may be ultimately entered in the proper account. The ordinary payments of the average estate will be found to comprise the following: 1. Probate and administration, which includes fees payable on the grant of the probate. 2. Funeral expenses, with all that that implies. 3. Executorship expenses, including valuation fees, law costs, accountant's charges, travelling expenses and other expenses incident to such a trust. 4. Debts owing by the testator, as rents,





wages and taxes. 5. Debts on mortgage, if any, with interest due at death. 6. Debts on bonds and other securities. 7. Pecuniary legacies.

Care must be taken to post all the sums received on account of income separate from the receipts on account of capital.

In closing up the accounts, transfer to Capital Account must be made of the items, as in Section 2 enumerated above, and any excess of receipts in the realization of the property over the amount at which inventoried, on the credit side, and on the debit side any deficiency which may have arisen from the same source. These matters having been attended to, the books will then show just what is left which is available for legacies and bequests, and this should be distributed amongst those entitled to it. In case any portion of the estate is still unrealized, or there are any debts against the estate outstanding, it is necessary that reserves should be made sufficient to cover these points. Annuities should be provided for by the investment, in an absolutely safe manner, of such a sum as will produce with the interest annually the required sum.

Having closed up these matters, the proving or passing of the accounts becomes necessary, and the preparation of statements to this end is next in order. Just what form these statements or schedules take, depends largely upon the law governing these matters in the particular locality or state. In New York the forms furnished and required by the Surrogate Court are: A—Receipts. B—Losses. C—Expenses. D—Debts. E—Payments to legatees. F—Names of persons entitled to share in the estate. G—Other information. H—Property or estate undisposed of. These forms are self explanatory, and, eliminating "F," which is merely a memorandum, should be self-balancing.

The accounts having been filed, are subject to examination and objection by any person interested in the estate, and reference is had to the proper authority for adjudication of any differences which may arise. If the objections are sustained, the accounts must be varied accordingly; if no change is effected as a result of the protest, the accounts are then settled, and the decree which makes them binding is issued.—*F. H. Macpherson, C. A.*

UNIVERSITY OF ILLINOIS. C. P. A. EXAMINATION, MAY, 1904.

QUESTION 6.

The administrator of a will received $63,000 in cash to be distributed among the heirs and legatees under the terms of the will, as follows:

Sarah, a daughter of the deceased, after payment of the legacies, including a legacy of $1,000 to herself, was to receive one-fifth of the residue of the estate.

Jane, a daughter of the deceased, after payment of the legacies, was to receive one-fifth of the residue of the estate.

Anne, a daughter of the deceased, was to receive the same as Jane.

George, a son, after payment of the legacies, including a legacy of $500 for himself, was to receive one-fifth of the residue of the estate.

Three children of a deceased son, Jacob, were to receive legacies of $500 each.

Reuben, a son, was to receive one-fifth interest in the residue of the estate, subject to the payment of the legacies as mentioned, and also subject to legacies of $3,000 each to his wife and three children.

The administrator carried out the terms of the will.

Open the books of the administrator showing receipt of the funds, their proper distribution, payment, and closing entries.

SOLUTION.

JOURNAL ENTRIES.

1.

| | | |
|---|---|---|
| Cash | $63,000 | |
| To Corpus | | $63,000 |

Funds in hands of administrator for distribution per will.

2.

| | | |
|---|---|---|
| Corpus | $63,000 | |
| To Legacies account | | $15,000 |
| Sarah | | $1,000 |
| George | | 500 |
| Jacob's children | | 1,500 |
| Reuben's wife | | 3,000 |
| Reuben's children | | 9,000 |
| Residuary Estate account | | 48,000 |

3.

| | | |
|---|---|---|
| Residuary Estate account | $48,000 | |
| To sundry legatees | | $48,000 |
| Sarah—⅛ | | $9,600 |
| Jane—⅛ | | 9,600 |
| Anne—⅛ | | 9,600 |
| George—⅛ | | 9,600 |
| Reuben—⅛ | | 9,600 |

Entered under the terms of the testator's will.

LEDGER ACCOUNTS.

CORPUS.

| | |
|---|---|
| Legacies | $15,000 |
| Residuary Estate account | 48,000 |
| | $63,000 |
| Cash | $63,000 |
| | $63,000 |





LEGACIES.

| | |
|---|---|
| Cash, Sarah | $ 1,000 |
| Cash, George | 500 |
| Cash, Jacob's children | 1,500 |
| Cash, Reuben's wife | 3,000 |
| Cash, Reuben's children | 9,000 |
| | $15,000 |
| Corpus | $15,000 |
| | $15,000 |

4.

RESIDUARY ESTATE ACCOUNT.

| | |
|---|---|
| Sarah, legatee, ⅛ | $ 9,600 |
| Jane, legatee, ⅛ | 9,600 |
| Anne, legatee, ⅛ | 9,600 |
| George, legatee, ⅛ | 9,600 |
| Reuben, legatee, ⅛ | 9,600 |
| | $48,000 |
| Corpus | $48,000 |
| | $48,000 |

SARAH, LEGATEE.

| | |
|---|---|
| Cash | $9,600 |
| Residuary Estate account | $9,600 |

JANE, LEGATEE.

| | |
|---|---|
| Cash | $9,600 |
| Residuary Estate account | $9,600 |

ANNE, LEGATEE.

| | |
|---|---|
| Cash | $9,600 |
| Residuary Estate account | $9,600 |

GEORGE, LEGATEE.

| | |
|---|---|
| Cash | $9,600 |
| Residuary Estate account | $9,600 |

REUBEN, LEGATEE.

| | |
|---|---|
| Cash | $9,600 |
| Residuary Estate account | $9,600 |

CASH ACCOUNT.

| | |
|---|---|
| Corpus | $63,000 |
| | $63,000 |

5.

| | |
|---|---|
| Legacies account— | |
| Legacy to Sarah | $ 1,000 |
| Legacy to George | 500 |
| Legacy to Jacob's children | 1,500 |
| Legacy to Reuben's wife | 3,000 |
| Legacy to Reuben's children | 9,000 |
| Legatees' accounts— | |
| Sarah | $ 9,600 |
| Jane | 9,600 |
| Anne | 9,600 |
| George | 9,600 |
| Reuben | 9,600 |
| | $63,000 |

—*G. Jacobsson.*

## (581) FACTORY COST ACCOUNTING.

See Manufacturing Costs.

## (582) FICTITIOUS ASSETS.

Fictitious assets are frequently expense accounts carried on the books as assets, for the reason that expenditures have been made for future benefit, which has not yet been received.

EXAMPLES.—Promotion expense, bonus, franchise, advertising.

Expenditures of this kind are usually charged off in certain proportions year by year, or at other stated intervals, until extinguished.

## (583) FIGURES.

These consist of Roman and Arabic numerals. The Roman is complicated and the Arabic is simple, but lawyers say that in contracts and law proceedings Roman figures will be held valid, but Arabic figures—owing to the ease with which they may be counterfieited—have been held not to be sufficient to express the sum due on a contract.

### (584) ARABIC FIGURES.

| Naught or Cipher | One | Two | Three | Four | Five | Six | Seven | Eight | Nine |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

### (585) ROMAN FIGURES.

I II III IV V VI VII VIII IX X





### (586) CIPHER.

This is one of the most curious features of either mathematics or accountancy.

A cipher placed in front of what is termed a "whole number" expresses nothing but zero.

.012

A cipher placed on the right-hand side of a "whole number" expresses great value.

$1,000,000

In this case the ciphers evidently represent $999,999. Thus—

$999,999 + 1 = 1 million dollars.

The zero marks are used in decimals to indicate the correct reduction of digital value. The right-hand ciphers are used to indicate the increase of value.

.12 = 12/100ths. .012 = 12/1000ths.

## (587) FILE.

A receptacle arranged for the deposit of papers or other data in alphabetical or numerical reference. (See Card Systems.)

## (588) FILING SYSTEMS.

### (589) ALPHABETICAL FILING SYSTEMS.

This is a system of folders, using a number of division sheets with projecting tabs arranged alphabetically.

It is also an ordinary card system, such as is used in recording stores received and delivered, and balances on hand. For illustration of a card system, see Manufacturing Accounting, or Card System, Volume 3.

### (590) DECIMAL FILING SYSTEM.

A method used in railroad organizations in which ciphers are used to designate general or sub-general headings. For example, 0—General will be divided as follows:

0.00 General.
0.10 Officers and Employes.
0.20 Materials and Supplies,—General.
0.30 Insurance.
0.70 Relations with federal, state and municipal governments.
0.80 Relations with other Transportation Companies, etc.

1—Executive—as follows:

1.00 Executive.
1.10 Constitution and By-Laws.
1.20 Charter and Letters-Patent, etc.

2—Finance and Accounts—as follows:

2.00 Finance and Accounts.
2.10 Finances.
2.20 Accounts.

3—Roadway and Structures—as follows:

3.00 Roadway and Structures.
3.10 Right of Way.
3.20 Crossings.
3.30 Roadbeds.
3.40 Tracks, etc.

4—Equipment and Shops—as follows:

4.00 Equipment and Shops.
4.10 Rolling Stock.
4.20 Floating Equipment.
4.30 Shops, etc.

5—Transportation and Storage:

5.00 Transportation and Storage.
5.10 Tracks and Terminals—Working.
5.20 Trains.
5.30 Locomotives—Utilization of, etc.

6—Traffic, Rates, etc., as follows:

6.00 Traffic, Rates., etc.
6.10 Passenger Traffic.
6.20 Freight Traffic.
6.30 Baggage, Handling, etc.
6.40 Mail, Handling, etc.
6.50 Express, Handling, etc.

No provision is made for digits 7 and 8, these having been especially left open in order that they may be used for such general subjects as may be considered desirable by the railroad offices using this system.

No. 9 has been especially provided for matters off the line of road and entirely foreign to a railroad, or, for matters to be filed geographically.

9.00 Local Facilities and Affairs.
9.10 New England.
9.20 South Eastern or South Atlantic.
9.30 South Central or Gulf.
9.40 North Central or Lake, etc.

### (591) NUMERICAL FILING INDEX.

In regard to correspondence, or any matter of that nature, the numerical system is best on an auxiliary card index. The cards are numbered from one





upwards and the folders for holding the matter to be filed are numbered in the same order. This involves a considerable amount of work because the particulars of the correspondence must be included in the card index, and the correspondence is filed separately. Numerical guide cards numbered by tens are placed at regular intervals in the letter drawers.

Sometimes there is an effort made to increase the efficiency of this system by cross indexing, according to the subjects, upon cards of different colors.

The numerical system is much used in connection with savings banks and customers' ledger accounts, especially where the number of these accounts is very large. See Card System, Vol. 3.

### (592) SUBJECT FILING INDEX.

As above indicated, a special index may be arranged on different colored cards or loose leaves, providing the subjects are not miscellaneous. The best plan, however, is undoubtedly to use extension tabs on the guide cards and to file these guide cards alphabetically.

### (593) GEOGRAPHICAL FILING INDEX.

This involves the use of guide cards indicating the locality required to be referred to. This system is much used in installment houses for the use of collectors. It is also used in a Real Estate business for the same purpose.

### (594) VERTICAL FILING SYSTEM.

This is a system of folders constructed vertically instead of horizontally. A vertical file drawer of the proper depth will hold approximately nine times as much correspondence as any standard horizontal file drawer. This saves a great deal of work in connection with transferring and also simplifies reference materially.

The Vertical Filing System consists of a separate folder or folders for each individual or subject, as the case may be.

Miscellaneous documents or correspondence are arranged in a separate folder, alphabetically.

### (595) FOLLOW-UP SYSTEM FILE.

If satisfactory results are to be obtained from the operation of a follow-up system, the inquiries must be followed up systematically—at the right time—and the system must provide for bringing the inquiries to notice exactly at the time when they require attention. By making use of certain mechanical devices, the follow-up system has been brought to such a state of perfection that any matter requiring attention a week, a month or six months from date can be dismissed from the mind with the assurance that it will be brought to notice at the proper moment.

The most simple device for a follow-up system is a correspondence file, indexed by dates. Most stationers carry in stock small files, designed for use on the desk, which are provided with thirty-one numbered compartments—one for each day in the month. In these compartments, letters or memoranda are filed according to the date on which the matters referred to should receive attention. As an illustration, a letter is written on the tenth of the month to which a reply should be received within ten days. A copy of the letter, or memoranda, referring to the matter, is placed in compartment No. 20. On the 20th all papers filed in compartment No. 20 are removed for attention. If no reply to the letter in question has been received, another letter is written, or such action as may be considered necessary is taken. Then if the matter has not been disposed of, the papers are filed ahead to the date on which they should again receive attention. A file of this kind will be found a great convenience on any man's desk and can be used to advantage for bringing to his notice from day to day all sorts of matters which require his attention.

Where the correspondence to be handled is too voluminous for the small desk file, one or more drawers in the regular files may be arranged with similar indexes.

### (596) CARD FILING SYSTEM.

See Volume 3.

### (597) CORRESPONDENCE FILING SYSTEM.

See Alphabetical, Numerical, Subject and Vertical.

### (598) CATALOG FILING SYSTEM.

The catalog file of the Maryland Steel Company has about 2,000 different books or pamphlets in it, and as it has been in operation for three years, it can be said to have proven itself satisfactory. Yet it is very simple and, up to this time, hasn't cost over $25 to provide and maintain.

An ordinary, wood re-inforced, box file, is used in which the catalogs are kept and the key to the situation is, of course, a card index. We will take up the boxes first. They can be bought by the hundred at about 16c each. After a catalog has been received and given its number, it is placed in the proper box which is marked on the outside with two numbers, usually giving a range of ten numbers, say 100-110. It is not the intention or desire to fill the box at once, but to leave room for other catalogs of the same material which may come along later. When, however, the box does fill up, it is easily managed by putting another box numbered "A" or "B." Some of the pamphlets, booklets and circulars received, which are worth saving, are small and it would take a large number to fill the box. Then the numbers will still be maintained by duplicating the same number. If you are looking up electrical fixtures and on going to your index for that title, you are referred to 175, it doesn't matter how many books you find in that box.





Large catalogs, bound volumes, are indexed just the same and their number plainly marked on the back, and the books placed on a shelf.

Now, as to the index. This is copiously cross-indexed under subjects and individuals. Take again as an example "electrical fixtures." Here you find the names of several firms whose catalogs you have, all shown on the same card. Then each of these firms has a separate card showing the same file number, so if you wanted the catalog of the Electrical Material Co., you look for it and find it as 175-B.

Acetylene light may be under consideration. Some one may want to figure on cost of lighting with it. Turning to "acetylene" in the card index, we get the names of the firms making appliances for its generation and use, and the boxes in which the catalogs may be found. If, later on, additional catalogs are received from other makers of acetylene generators or lamps, their names would be put on the same card and their number would be the next unfilled number in the box, in this case, 321. Should there already be ten different makers and there was still room in the box for more, the number would be either the same or 321-A. That is optional with the filer and really makes no difference.

### (599) ELECTROS, CUTS OR PATTERNS FILING SYSTEM.

#### FORM 1.

The forms illustrated are in themselves almost self-explanatory, but to clearly define their use, we will go through an imaginary transaction.

The General Mail Merchandise Company have a particularly fine buggy which is known as the Winthrop Special. A cut of this is made by the engraving company. When the electro company send the engraving, the man in charge of the cuts immediately pastes Form 1 on the electro. All electros are numbered consecutively. This one happens to be number 47.

Then Form 2 is filled out as illustrated.

ELECTRO No. 47
GENERAL MAIL MERCHANDISE CO.
NEW ORLEANS, LA.

Form 1.

**ELECTRO CARD**

Electro No. 47 Cost $12.00
Source: Beaber Engraving Co., Columbus, Ohio.
DESCRIPTION
Buggy (Catalogue #A 322) Outline gear
150 line screen, from drawing
Size 5" X 4" Points excellent (especially on high grade paper, book and enamel.

Form 2.

**SUBJECT CARD**

Subject: Vehicles
Electro Nos. 1 – 7 – 31 – 47 – 48 – 68 – 89 – 105 –

Form 3.

**SPECIAL SUBJECT CARD**

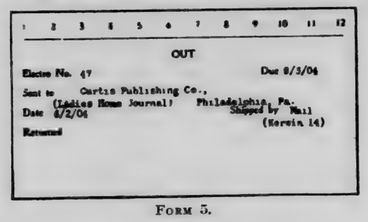
For Buggy (Winthrop Special)
Catalogue No. #A 322
Electro Nos. 47 – 105
REMARKS
47 is 5" X 4" Excellent on book paper
105 " 2" X 12" Very difficult to print

Form 4.

FORM 2.

This is a white, three by five card, and it is filed numerically in the card cabinet.

Notice of the receipt of the electro is then sent the vehicle department with a slip bearing the information on the Electro Card (Form 2). Then this information is entered in a book kept for that purpose by the department. Then also a check is made against 74,322 in a department catalog so that they may know for what vehicles in the catalog they have electros.


1 2 3 4 5 6 7 8 9 10 11 12

OUT

Electro No. 47 Due 8/3/04

Sent to Curtis Publishing Co.,

(Ladies Home Journal) Philadelphia, Pa.

Date 6/2/04 Shipped by Mail

(Herein 14)

Returned

FORM 5.

The clerk in charge of the electros then goes to the alphabetical files and picks out the Subject Card (which should be any color but white) and puts down the proper number (See Form 3).

FORM 3.

He also fills out a Special Subject Card as shown in Form 4.

FORM 4.

This card is white and is filed in the same cabinet as the preceding Subject Card (Form 3). The card in the present instance is filed among the last of the Be's, on account of the Winthrop, so that if called on to find that card he will turn to the guide card Be and then to Wi in the cards behind that guide.

FORM 5.

Then when this cut is used an Out Card (Form 5) is filled out. For the sake of economy, these cards are of light stock or paper. These are filed in front of the Electro Card (Form 2). A steel pointer over the month indicates to the clerk, when looking over the cards, whether or not an electro is due that month, without first examining the cards. The files should be examined every five or ten days, so that publishers tardy in returning electros can be written to. When the electro is returned by the publisher, the Out Card is either destroyed or filed numerically in a transfer case for reference.

## (600) FINANCIAL STATEMENT.

See Balance Sheet, Trading Account, Profit and Loss Account, Comparative Statements, etc.





## (601) FIRE INSURANCE AGENCY ACCOUNTING.

Forms used—Expiration Journals, Ledger and Cash Book.

The Expiration Journals consist of daily, monthly and yearly records. In the daily record, the amount of premium is posted direct to the Ledger account of each individual, and the total amounts are carried to the regular monthly record sheet. The total amount of premiums is posted direct from the monthly record to the credit of the Insurance account in the Ledger. Net premiums are credited direct to the respective companies' accounts in the ledger.

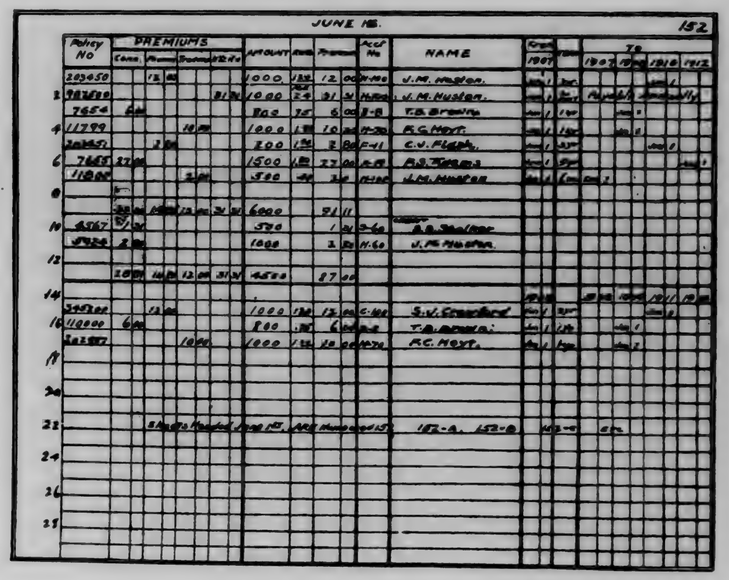
The yearly record is a summary of the monthly records. If a record of a loss by fire is desired, it can be kept as shown on Form 4, thus enabling a local agent to give actual figures to any general agent who may visit the agency.

Form 5 is a Ledger, and a simple plan of Cash Book is used, considered sufficient for the Agency business.

The following are the advantages of this system:

DAILY RECORD.

Separate record of business given each company.
Automatic record of expirations on that day for each year.
No expiration record to make up or rewrite.


JUNE 16. 152

| | Policy No | PREMIUMS Cash | Notes | Deposit | 2% | AMOUNT | RATE | Premium | | Acct No | NAME | Cash 1907 | | To 1907 | 1908 | 1910 | 1912 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 289650 | | 12 | 00 | | 1000 | 1.25 | 12 | 00 | D-116 | J.M. Huston. | | | | | | |
| 2 | 983589 | | | | 21 | 1000 | 2.4 | 21 | 24 | H-122 | J.M. Huston. | | | | | | |
| 3 | 7654 | 6 | 00 | | | 800 | .75 | 6 | 00 | B-8 | T.B. Browne | | | | | | |
| 4 | 11799 | | | 10 | 00 | 1000 | 1.25 | 10 | 00 | D-39 | R.C. Hoyt | | | | | | |
| 5 | 248657 | | 2 | 00 | | 200 | 1.50 | 2 | 00 | E-41 | C.V. Fleck, | | | | | | |
| 6 | 7685 | 27 | 00 | | | 1500 | 1.80 | 27 | 00 | A-8 | A.B. Jones | | | | | | |
| 7 | 11800 | | | 2 | 00 | 500 | .60 | 3 | 00 | H-116 | J.M. Huston | | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | 55 | 00 | 18 | 00 | 6000 | | 91 | 11 | | | | | | | | |
| 10 | 8767 | 1 | 00 | | | 500 | | 1 | 00 | D-40 | A.B. Smallman | | | | | | |
| 11 | 9726 | 2 | 00 | | | 1000 | | 2 | 00 | H-60 | J.M. Huston | | | | | | |
| 12 | | | | | | | | | | | | | | | | | |
| 13 | | 100 | 00 | 12 | 00 | 4500 | | 87 | 00 | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | |
| 15 | 349200 | | 12 | 00 | | 1000 | 1.25 | 12 | 00 | C-102 | S.V. Crawford | | | | | | |
| 16 | 119000 | 6 | 00 | | | 800 | .75 | 6 | 00 | B-8 | T.B. Browne | | | | | | |
| 17 | 248657 | | | 10 | 00 | 1000 | 1.25 | 10 | 00 | H-74 | R.C. Hoyt. | | | | | | |
| 18 | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | 152-A. 152-B | | | | | | |
| 23 | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | |

MONTH of JUNE, 1907. 371

| | DATE JUNE | PREMIUMS Conn | Phoenix | Travelers | All Life | Amount Insurance | Total Premiums | Acct. No | REMARKS | CANCELLATIONS DATE 1907 | Policy No. | Company | Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 28 09 | 14 80 | 12 00 | 31 31 | 4500 | 37 00 | | | June 1 | 5826 | Conn | 25 |
| 2 | 2 | | | | | | | | | | | | |
| 3 | 3 | | | | | | | | | | | | |
| 4 | 4 | | | | | | | | | | | | |
| 5 | 5 | | | | | | | | | | | | |
| 6 | ETC To 30 | | | | | | | | | | | | |
| 8 | USING 2 SHEETS | | | | | | | | | | | | |
| 10 | DATED 1 to 21 to 30 | | | | | | | | | | | | |
| 12 | Total | 100 00 | 100 00 | 100 00 | 100 00 | 40000 | 400 00 | 1-50 | | | | | |
| 14 | Commission | 10 00 | 10 00 | 10 00 | 10 00 | | | | | | | | |
| 15 | Postage | 1 00 | 1 00 | 1 00 | 1 00 | | | | | | | | |
| 16 | Misc. | 50 | | 50 | 50 | | | | | | | | |
| | Total Deductions | 11 50 | 11 50 | 11 50 | 11 50 | | 46 00 | | | | | | |
| 18 | NET | 88 50 | 88 50 | 88 50 | 88 50 | | 354 00 | 1-50 | | | | | |
| | Acc. No. | C-8 | P-9 | T-6 | N-7 | | | | | | | | |
| 20 | % of Cost to Commission | 11 1/8 | 11 1/8 | 11 1/2 | 11 1/2 | | 11 1/8 | | | | | | |

YEAR OF 1907 379

| | DATE 1907 | PREMIUMS Conn | Phoenix | Travelers | TOTAL INSURANCE | TOTAL PREMIUMS | TOTAL COMMISSIONS | TOTAL EXPENSE | PROFIT | WITH THE COMPANY FOR THE YEAR Conn. |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | JAN | | | | | | | | | |
| | FEB. | | | | | | | | | |
| 4 | MAR | | | | | | | | | |
| | APR | | | | | | | | | |
| 6 | MAY | | | | | | | | | |
| | JUNE | | | | | | | | | |
| 8 | JULY | | | | | | | | | |
| | AUG | | | | | | | | | |
| 10 | SEPT. | | | | | | | | | |
| | OCT. | | | | | | | | | |
| 12 | NOV. | | | | | | | | | |
| | DEC | | | | | | | | | |
| | TOTAL GOOD FOR 1906 | | | | | | | | | |
| 14 | JAN | | | | | | | | | |
| | FEB | | | | | | | | | |
| 16 | MAR | | | | | | | | | |
| | APR. | | | | | | | | | |
| 18 | MAY | | | | | | | | | |
| | JUNE | | | | | | | | | |
| 20 | JULY | | | | | | | | | |
| | AUG | | | | | | | | | |
| 22 | SEPT. | | | | | | | | | |
| | OCT. | | | | | | | | | |
| 24 | NOV. | | | | | | | | | |
| | DEC | | | | | | | | | |
| 26 | TOTAL NOT GOOD FOR 1907 | | | | | | | | | |
| | ADDED TO THIS ACCOUNT ALLOWANCE FOR BOOKKEEPING | | | | | | | | | |
| 28 | TOTAL | | | | | | | | | |





CLAIMS PAID DURING YEAR OF 1907 380

| | Policy No | Amount of Loss Conn | Phoenix | Travelers | Royal | DATE LOSS | DATE PAID | NAME | SUMMARY. TOTAL CLAIMS PAID |
|---|---|---|---|---|---|---|---|---|---|
| 2 | | | | | | | | | JAN. |
| | | | | | | | | | FEB |
| 4 | | | | | | | | | MAR. |
| | | | | | | | | | APR. |
| 6 | | | | | | | | | MAY |
| | | | | | | | | | JUNE |
| 8 | | | | | | | | | JULY |
| | | | | | | | | | AUG. |
| 10 | | | | | | | | | SEPT. |
| | | | | | | | | | OCT. |
| 12 | | | | | | | | | NOV |
| | | | | | | | | | DEC |
| 14 | TOTAL | | | | | | | | Total |
| 16 | | | | | | | | | |
| 18 | | | | | | | | | |
| 20 | | | | | | | | | |
| 22 | | | | | | | | | |
| 24 | | | | | | | | | |
| 26 | | | | | | | | | |
| 28 | | | | | | | | | |

No space wasted—everything is compact and every line of each sheet is used.

Each day's business is separate and in form for comparison with business of previous years.

If desired, renewal policy numbers can be inserted in second column on left-hand side of sheet.

The name of the company is written but once for each day.

### MONTHLY RECORD.

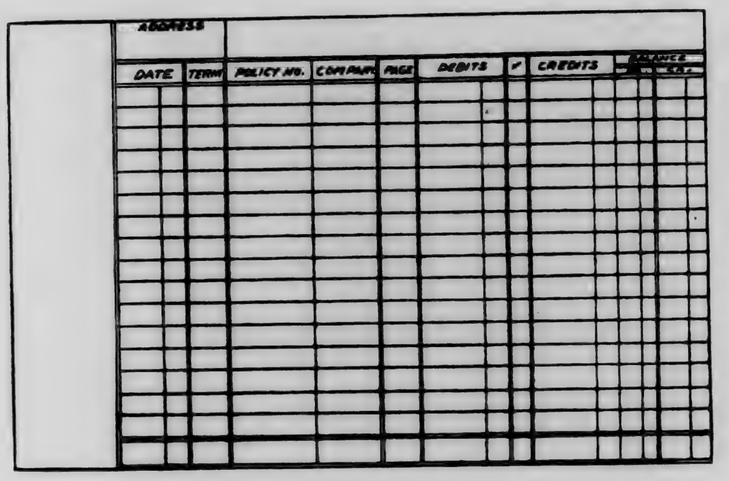
Shows what amount of business is being done each day; no necessity of waiting until end of month to find how much insurance is written.

No possibility of forgetting or overlooking charging back to the companies any return premiums due for cancellations.

This serves as a double check on monthly accounts current to each company.

If desired, the total daily expenses of the agency (as shown by the cash book) can be inserted in column following heading of "remarks."

Amount of business given each company is before you, as a guide in figuring percentage of postage to be charged to each company.




YEARLY RECORD.

One glance shows what has been accomplished during the year.

Each month's record is separate, yet combined for total results.

It is a practical guide to your business—showing how much business has been secured each month, and whether the amount of money expended in securing that business is excessive or not.

Shows what the agent is doing for himself.

Shows what he is doing for each and every company which he represents.

CLAIMS RECORD.

Complete record of each and every loss sustained by the several companies represented by the agency.

## (602) FIRE INSURANCE ADJUSTMENT.

The fire insurance adjuster is usually an exceedingly clever individual selected by insurance companies as a man possessing an uncommon knowledge of human nature, one who can tell at a glance if the claim is fraudulent by the actions and appearance of the claimant, and who will promptly know when it will be good policy to make a prompt and liberal settlement.

The adjustment of fire losses frequently presents some rather puzzling problems as to value of inventory on hand, etc., but as a rule, it is safe to calculate the average profit made during the preceding twelve months, and proceed as follows:





| | |
|---|---|
| Inventory January 1st | $..... |
| Purchases | ..... |
| Total | $..... |
| Gross Sales | $..... |
| Less Average Percentage of Profit | ..... |
| Cost of goods sold | $..... |

Deducting net sales from the footing of Inventory and Purchases, the difference remaining is the approximate amount of Inventory at date of fire.

The entries to be made on the books of account covering the adjustment may be treated somewhat as follows:

The S. Krajove Piano Manufacturing Company was partially destroyed by fire November, 1900. It carried insurance on buildings, machinery and stock of $30,000. This insurance was placed January 1st, 1900, at 2 per cent., and the premium amounted to $600 for one year, which was paid in advance. The actual value of the property insured was estimated at $35,000. The actual value of the property destroyed or damaged was $20,000.

The insurance adjusters claimed that the actual damage by fire was $15,000, and they agreed that the insurance companies should pay this amount and the S. Krajove Piano Manufacturing Company to keep the salvage—that is, the buildings, machinery and stock damaged, but not entirely destroyed.

In formulating a claim against the insurance company the amount of inventory when last taken, July 1st, 1900, was used as a basis. To this stock was added the total of invoices of goods purchased, labor according to cost records, freight and percentage of administrative expense. The average percentage of gross profit as shown by the records of the six months' business, from January to June, was then deducted from the total sales and the remainder deducted from the inventory, plus purchases, plus labor, plus freight, plus proportion of administrative expense, the difference being the average inventory on hand at date of the fire.

The following entries were then made on the books to adjust the matter:

| | Dr. | Cr. |
|---|---|---|
| Insurance Account | $15,000 | |
| Amount of damages agreed upon by insurance adjusters: | | |
| Buildings | $7,000 | |
| Machinery | 3,500 | |
| Unfinished Stock | 4,500 | |
| Salvage Account | 5,000 | |
| Value placed by insurance adjusters on that portion of buildings, machinery and stock in trade that was damaged but not entirely destroyed by fire, viz.: | | |
| Buildings | $2,500 | |
| Machinery | 1,500 | |
| Unfinished Stock | 1,000 | |

| | |
|---|---|
| Building Account | $9,500 |
| Machinery Acct | 5,000 |
| Unfinished Stock | 5,500 |

The S. Krajove Piano Manufacturing Company rebuild that portion of their premises which was destroyed by fire and which was valued in the salvage account at $2,500, but they consider it worth only $2,000. The following entry is, therefore, made on their books:

| | | |
|---|---|---|
| Building Acct | $2,000 | |
| To Salvage Acct | | $2,000 |

For portion of building damaged in fire used in reconstruction.

The S. Krajove Piano Manufacturing Company repair some of the machinery which went through the fire and value such machinery over and above cost of repair at $1,000. The damaged uncompleted stock is sold for $1,250 to J. Smith & Co. The following entry is, therefore, now made:

| | | |
|---|---|---|
| To Salvage Acct | | $2,250 |
| Machinery Acct | $1,000 | |
| J. Smith & Co. | $1,250 | |

Machinery damaged by fire, repaired and used in mill.

Dr.

Salvage sold to them.

Cash payment is received from the insurance companies amounting to $14,250. Make entry on cash book, debit side:

Dr.

| | |
|---|---|
| Insurance Acct., Cash payments from insurance companies (itemized) | $14,250 |

One of the insurance companies goes bankrupt before paying its share of the damages, on account of which the S. Krajove Piano Manufacturing Company is unable to collect $750 of the insurance money. The following entry is, therefore, made:

| | | |
|---|---|---|
| Fire Loss Acct. | $750 | |
| To Insurance Acct. | | $750 |

Insurance uncollectable owing to failure of Union Fire Ins. Co.

All of the salvage having been disposed of and a debit balance of $750 remaining on that account, the following entry is made to close the account:

| | | |
|---|---|---|
| Fire Loss Acct. | $750 | |
| To Salvage Acct. | | $750 |

Net loss on salvage from fire.





The amount paid January 1st, 1900, for one year's premium on insurance now remains standing as a debit balance on insurance account. At the end of the year the following entry is made to dispose of this balance:

| | | |
|---|---|---|
| Insurance Account | | $600.00 |
| Profit and Loss: | | |
| 11 months' premium from Jan. 1, 1900, to date of fire | $550.00 | |
| Fire Loss Acct. | | |
| One month insurance premium (where the loss exceeds 50% of the insurance, the companies make it a rule not to allow for the balance of unexpired insurance) | 50.00 | |

—*A. A. Pribnow.*

In many fire insurance policies the average clause is inserted. This is generally worded as follows:

"It is a part of the consideration of this policy and the basis upon which the rate of premium is fixed, that the assured shall maintain insurance on each item of property insured by this policy equal to the actual cash value thereof, and that failing so to do, the assured shall be an insurer to the extent of such deficit, and in that event shall bear his, her or their proportion of any loss."

This clause works in the following manner:

If property valued at $10,000 is insured for $7,500, and there is a partial loss by fire of goods to the value of $3,000, the insurance company would pay $2,250, or same proportion of the loss as the amount insured bore to the total value, viz., three-quarters.

When the amount received from the insurance company for rebuilding and replacement exceeds the cost of such rebuilding and replacement, the surplus can be distributed as profit, but the amount of such distribution should be separately stated so as not to affect the trading statistics.

### (603) FIXED ASSETS.

See Assets.

### (604) FIXED CAPITAL.

Capital invested in fixed or permanent assets.

### (605) FIXED CHARGES.

Charges against revenue which are regular in their recurrence, such as rent, interest on funded debt or bonds, taxes, etc.

### (606) FIXED LIABILITIES.

Liabilities of a permanent character, such as capital, bonds and mortgages.

### (607) FIXTURES.

An account representing the value of fixtures purchased by and used in the transactions of a business. (See also "Furniture and Fixtures.")

### (608) FLOATING ASSETS.

Also called cash assets. See Assets.

### (609) FLOATING CAPITAL.

The capital retained for the purpose of meeting current expenses. It includes raw materials destined for fabrication, such as wool and flax products in the warehouse of a merchant or manufacturer; and such as cloth, linen, stores, money for wages, etc.

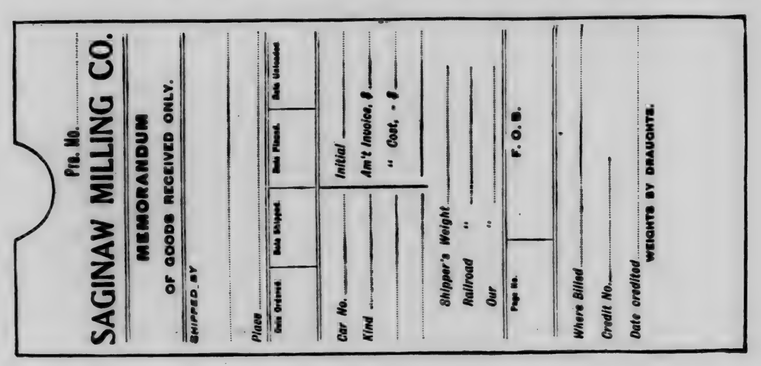
### (610) FLOATING DEBT OR INDEBTEDNESS.

The ordinary trade or current liabilities of a business—such as bills and accounts payable, salaries, rent, etc.

### (611) FLOUR MILL BUSINESS ACCOUNTING.

This describes the system of a large Michigan Milling Company which maintains a line of elevators throughout the State. A strict division of ledger accounts into purchase and sales ledgers is considered impracticable on account of so many sales being made to, and purchases from the same party. The departmental divisions consist of grain, beans, seeds and hay. Each of these is a purchase and sales deparement in itself. There is also a general sales department having supervision over the departments mentioned and over the salesmen.

When a car is received it is inspected and, if the grade is as purchased, it is unloaded at once, the weight being entered in a receiving book and also

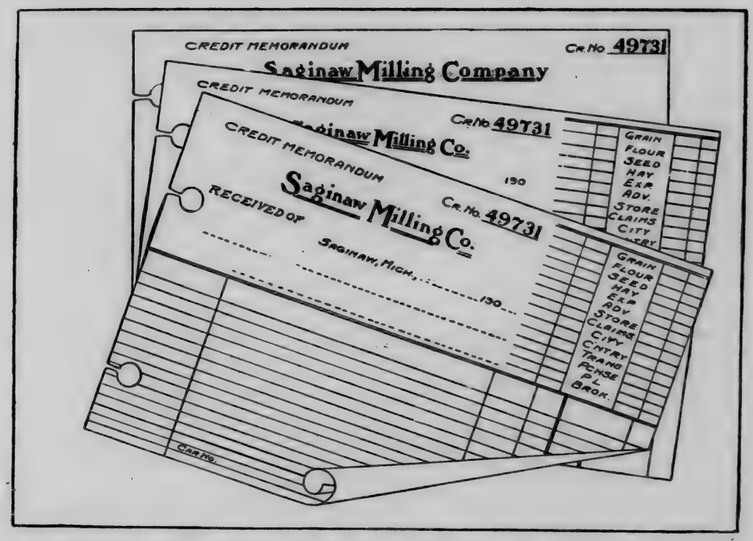







on a car ticket, which is in the form of a large envelope open at one end, as per Form 1.

Credit Memorandums are made out in triplicate, as per Form 2, the original going to the ledger clerk, the second copy to the cost department and the third copy is the shipper's receipt for the goods and is mailed to him.




The Order Sheet and Invoice are made out in quadruplicate, as per Form 3, and are made direct from the salesmen's orders or customer's written orders. Telephone or wire orders are entered on the Memorandum Slip, Form 4.

The receiving books, as per Form 5, may not be absolutely necessary if the purchase orders were properly arranged.

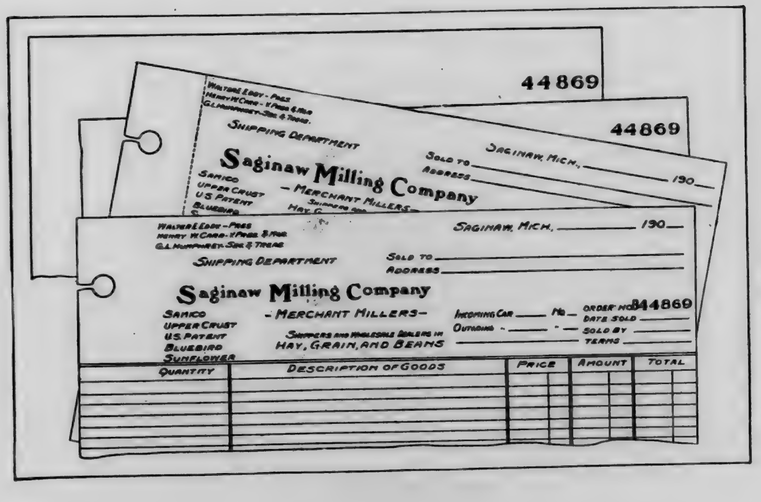
The head miller's daily report of each day's production is as per Form 6, and on the accuracy of this report depends the accuracy of the cost records.

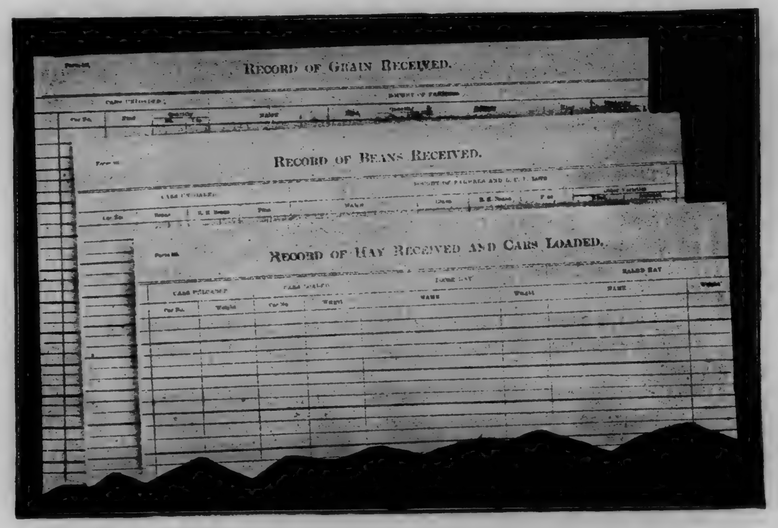
The time cards used in the time clock provide for a proper distribution, as per Form 7.

Stock cards are of the common form without provision of value.

Form 8 is a Bank Register and Cash Journal, and the headings are self-explanatory.

The elevators are independent corporations, in which the manager of each has a financial interest. Purchases are made from, and sales to them, in exactly the same manner as to other dealers. Contracts are made with them and are binding, and lived up to, the same as if there were no business connection; and business contracts are made by them with outside dealers and between each other.








SALES MEMO

190

Sold to

Place

Shipping Instructions

If Draft, what Bank

Credit O.K.

Price O.K.

Invoice No.

SALESMAN

# HEAD MILLER'S REPORT 190

Yield Hours Run Hours Lost

Cause of Shut Down

| GROUND | MANUFACTURED | |
|---|---|---|
| | UPPER CRUST | |
| ACCORDING TO AUTOMATIC SCALE | UNCLE SAM | |
| | SAMICO | |
| WEIGHT FIGURED BACK | BLUE BIRD | |
| | PEOPLES | |
| SCREENINGS | LOW GRADE | |
| | | |

BRAN AND MIDDLINGS

BRAN

MIDDLINGS

TOTAL

| | |
|---|---|
| RYE FLOUR | NUTRO |
| BUCKWHEAT FLOUR | STREET CAR FEED |
| UNCLE SAM PANCAKE | NO. 1 FEED |
| SAMICO PANCAKE | NO. 2 FEED |
| FINE MEAL | STOCK FEED |
| | CRACKED CORN |
| | COARSE CORN MEAL |
| GRIST | GROUND OATS |

RECORD OF DEPOSITS, CASH DISBURSEMENTS, CHECKS DRAWN AND PURCHASES FOR MONTH OF _____ 190

| O | Date | Name | Remarks | Cash Paid | Ck. No. | √ | Deposits | Checks Drawn | L. F. | Ledger Dr. | Ledger Cr. | Inv. No. | Expense | Test | Price |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Amts Bot. Fwd | | | | | | | | | | | | | |
| O | | | | | | | | | | | | | | | |

SAGINAW MILLING CO.
SAGINAW, MICH.

PAY ENDING _____

NO.
NAME

DEP'T. _____

| DISTRIBUTION RATE | Amt. | | | | | | | | | | | | | | |

CAR NO. C&NW 1342 — PROOF CHECK

ANALYSIS

2.70 % SILICON
.70 % MANGANESE
1.10 % GRAPHITIC CARBON
.30 % COMBINED CARBON
.40 % PHOSPHORUS
.09 % SULPHUR
% ASH

| DATE 1907 | | CONSIGNOR | INVOICE WT. |
|---|---|---|---|
| Feb. | 25 | P. B. & Co. | 44.800 |

| DATE 1907 | | USED | CHARGED IN CUPOLA | BALANCE |
|---|---|---|---|---|
| Feb. | 27 | | 4300 | 40.500 |
| " | 28 | | 4300 | 36.200 |
| Mch. | 2 | | 8000 | 28.200 |
| | 3 | | 8400 | 19.800 |
| | 4 | | 9000 | 10.800 |
| | 5 | | 9250 | 1.550 |
| | 6 | | 1200 | 350 |

is received borings are taken from pigs in different parts of the car and analyzed by the chemist. This analysis is recorded on Form 2, a report to the foreman of the foundry. Each car of pig-iron is unloaded in a pile by itself with a notation as to the car number.

The cupola man is furnished with a report of the cupola formula of charge mixture and makes a report each day of the actual cupola charge, as per Form 5.

Form 6 is the daily foundry summary or abstract—a comparative record of the daily operations of the foundry which is invaluable.

Form 7 is the molders' time and material record.

Form 9 is made up by the cleaner, being a daily report of castings made.





DAILY FOUNDRY REPORT — DATE Feb. 27. 1907

| CUPOLA CHARGE | | | ANALYSIS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Car No. | Brand | Weight | Silicon % | Silicon Lbs. | Manganese % | Manganese Lbs | Graphitic Carbon % | Graphitic Carbon Lbs. | Combined Carbon % | Combined Carbon Lbs | Phosphorous % | Phosphorous Lbs. | Sulphur % | Sulphur Lbs |
| | Pig boy | | | | | | | | | | | | | |
| 1342 | B.V. #2 | 4.300 | 5.22 | 224.46 | 0 | 0 | 2.71 | 116.53 | 0 | 0 | .438 | 18.83 | .011 | .473 |
| 7462 | " " | 4.300 | 3.27 | 14060 | .46 | 19.78 | 3.06 | 131.58 | 0 | 0 | 1.511 | 64.97 | .036 | 1.548 |
| 94018 | Sheff | 5.400 | 3.41 | 184.14 | .64 | 34.56 | 2.83 | 152.82 | .12 | 6.48 | 1.429 | 77.16 | .041 | 2.214 |
| 2672 | " | 5.400 | 1.43 | 77.22 | .75 | 40.50 | 3.38 | 182.52 | .50 | 27.00 | .213 | 11.50 | .017 | .918 |
| | Remelts | 12.600 | 3.75 | 472.50 | .26 | 32.76 | 2.96 | 372.96 | 0 | 0 | 1.117 | 140.74 | .112 | 14.112 |
| TOTAL | | 32.000 | 3.43 | 109892 | .39 | 12.760 | 2.99 | 95641 | .10 | 3348 | 1.00 | 32.000 | .06 | 1.265 |
| Average Gross % Analysis | | | 3.43 | | .39 | | 2.99 | | .10 | | 1.00 | | .06 | |
| Less 10% by oxidation on Sil. + Manganese | | | .34 | | .04 | | | | | | | | | |
| Net average % mixture Analysis | | | 3.09 | | .35 | | 2.99 | | .10 | | 1.00 | | .06 | |

| BRAND | WEIGHT | PRODUCT | | | | |
|---|---|---|---|---|---|---|
| Coke | 5.500 | Gross Metal Cast | | | 29 | 331 |
| | | Discount | | 147 | | |
| | | Broken | | 150 | | |
| | | Sprews | 16 | 511 | 18 | 808 |
| | | Net good Castings | | | 10 | 523 |
| REMARKS: Joe:- Coke is getting low hurry some forward at once. John | | Total Metal charged in Cupola | 32 | 000 | | |
| | | Total Product | 29 | 331 | | |
| | | Metal loss in Weight | | | 2 | 669 |
| | | Metal loss per cent | | | | .0834 |
| | | 17.2 lbs. Coke used to each 100 lbs. Metal melted. | | | | |

On Form 10 the clerk of the foundry enters each day the daily product of each man. At the end of each two weeks the molder's pay is figured from this card. From this card the clerk enters daily the castings made and discounts, as per Form 11, after which this information is sent to the main office and entered daily on Form 12.

Form 13 is the broken castings, etc., a daily report including quantity, pattern number and total weight.

CUPOLA CHARGE MIXTURE — DATE Feb. 27. 1907

| REMELTS PIG IRON | | ANALYSIS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Car No. | Brand | Lbs. | Silicon % | Silicon Lbs | Manganese % | Manganese Lbs | Graphitic Carbon % | Graphitic Carbon Lbs. | Combined Carbon % | Combined Carbon Lbs | Phosphorous % | Phosphorous Lbs | Sulphur % | Sulphur Lbs |
| 1342 | B.V. # 2 | 400 | 5.22 | 20.88 | 0 | 0 | 2.71 | 10.84 | 0 | 0 | .438 | 1.752 | .011 | .044 |
| 7462 | " | 500 | 1.43 | 7.15 | .75 | 3.75 | 3.38 | 16.90 | .50 | 2.50 | .213 | 1.065 | .017 | .085 |
| 94018 | Sheffield | 400 | 3.27 | 13.08 | .46 | 1.84 | 3.06 | 12.24 | 0 | 0 | 1.511 | 6.044 | .036 | .144 |
| 2672 | " | 500 | 3.41 | 17.05 | .64 | 3.20 | 2.83 | 14.15 | .12 | .60 | 1.429 | 7.145 | .041 | .205 |
| | Remelts | 1200 | 3.75 | 45.00 | .26 | 3.12 | 2.96 | 35.52 | 0 | 0 | 1.171 | 14.052 | .112 | 1.344 |
| TOTAL | | 3000 | 3.43 | 103.16 | .39 | 11.91 | 2.99 | 89.65 | .10 | 3.10 | 1.001 | 30.058 | .06 | 1.822 |
| Less 10% by Oxidation on Sil. + Manp. | | | .34 | | .04 | | | | | | | | | |
| Net average % mixture Analysis | | | 3.09 | | .35 | | 2.99 | | .10 | | 1.001 | | .06 | |

## ABSTRACT OF DAILY

| Date 1907 | CUPOLA CHARGE: COKE Pounds | COKE Total | REMELTS Pounds | REMELTS Total | PIG IRON Pounds | PIG IRON Total | METAL CHARGE Pounds | METAL CHARGE Total | AVERAGE MIXTURE ANALYSIS: PIG IRON Silicon | PIG IRON Sulphur | PIG IRON Manganese | PIG IRON Phosphorus | CASTINGS Silicon | CASTINGS Sulphur | CASTINGS Manganese | CASTINGS Phosphorus | PRODUCT GROSS Pounds |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feb 27 | 5500 | | 12600 | | 19.400 | | 32.000 | | Sum | .56 | 2.99 | .110 | Sum | .54 | Sum | .07 | 29.331 |
| 28 | 5500 | 11.000 | 12600 | 25200 | 19.400 | 38800 | 32.000 | 64.000 | 3.15 | .112 | 2.3 | .12 | .108 | 1.07 | .72 | .11 | .109 | 29.331 |
| TOTAL FOR MONTH | 110.000 | | | 252.000 | | 388.000 | | 640.000 | | | | | | | | | |

## FOUNDRY REPORT

| DUCT: CAST Total | REMELTS Pounds | REMELTS Total | GOOD CASTINGS Pounds | GOOD CASTINGS Total | STATISTICAL: METAL LOSS Pounds | METAL LOSS Total | METAL LOSS Per Cent | Lbs. Coke used to 100 lbs Metal Melted | Number of Pounds Metal Melted per Hour | COST FOR MONTH: Month's Coke | Sand Supplies | Power per Hour | Office Time & Expenses | Labor | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 18808 | | 16523 | | 2.669 | | 0834% | 17.2 | | | | | | | |
| 58.662 | 18808 | 37.616 | 16523 | 21.046 | 2.669 | 5.338 | 0834% | 17.2 | | | | | | | |
| 586 62 | | | | | | | | | | | | | | | |
| Total for Month | | 376.160 | | 210.460 | | 53.380 | | | 2 Sundries | $25 00 | $10 00 | $30 00 | Sundries | $36 | $771 96 |

## SPECIFICATIONS

FINISHED PART RECORD

ARTICLE No 26 Cultivator Frame Bundle

| Date | Qty | Total | Date | Qty | Total |
|---|---|---|---|---|---|
| April 1 | 100 | 100 | | | |
| 18 | 200 | 300 | | | |
| May 10 | 500 | 800 | | | |

| 1907 ORDERS TO SHIP: Date | Qty | Total | Date | Qty | Total | 1907 MADE: Date | Qty | Total | Date | Qty | Total | SHIPPED: Date | Qty | Total | Date | Qty | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| April 5 | 50 | 50 | | | | June 5 | 60 | 60 | | | | June 6 | 50 | 50 | | | |
| 6 | 15 | 65 | | | | 6 | 50 | 110 | | | | 7 | 75 | 125 | | | |
| 7 | 120 | 185 | | | | 7 | 75 | 185 | | | | 8 | 50 | 175 | | | |
| May 6 | 80 | 265 | | | | 8 | 25 | 210 | | | | 9 | 30 | 205 | | | |
| 16 | 300 | 565 | | | | 9 | 40 | 250 | | | | | | | | | |
| 11 | 35 | 600 | | | | | | | | | | | | | | | |
| June 9 | 10 | 610 | | | | | | | | | | | | | | | |





## CUPOLA CHARGE

DATE Feb 27 1907

| CAR NO | BRAND | LBS |
|---|---|---|
| | PIG IRON | |
| 1362 | P B & Co Bxy V = 2 | 4300 |
| 7462 | " " " - | 4300 |
| 8406 | Stanfield | 4400 |
| 5072 | | 5400 |
| | REMELTS | 12.600 |
| | COKE | 5.500 |
| | REMARKS: | |

DATE _____

DAILY REPORT OF CASTINGS MADE

| Pattern Letter | Pattern Number | Good | Discount | Broken | Pattern Letter | Pattern Number | Good | Discount | Broken |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

MOULDERS NAME _____ MONTH OF _____ 190__

| Date | Pattern Letter | Pattern No | Moulds Put Up | Pieces per Mould | Quantity | Price | Pattern Letter | Pattern No | Moulds Put Up | Pieces per Mould | Quantity | Price | Pattern Letter | Pattern No | Moulds Put Up | Pieces per Mould | Quantity | Price | Pattern Letter | Pattern No | Moulds Put Up | Pieces per Mould | Quantity | Price |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | |

NAME _____ MOULDERS CHECK FLOOR NO. _____

| DATE | NO. | | NO. | | NO. | | NO. | | NO. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | MADE | D | MADE | D | MADE | D | MADE | D | MADE | D |
| | | | | | | | | | | |

BROKEN CASTINGS REPORT

DATE _____ 190__

| Number | Quantity | Number | Quantity | Number | Quantity |
|---|---|---|---|---|---|
| | | | | | |

## ORDERS & MADE CASTING RECORD

| | NO C 530 Crank Arm | NO _____ | NO _____ | NO _____ |
|---|---|---|---|---|
| ORDERS | Date / Q'ty / Total | Date / Q'ty / Total | Date / Q'ty / Total | Date / Q'ty / Total |
| | April 1 / 100 / 100 | | | |
| | 10 / 200 / 300 | | | |
| | May 10 / 300 / 800 | | | |
| MADE | Date / Q'ty / D / Total | Date / Q'ty / D / Total | Date / Q'ty / D / Total | Date / Q'ty / D / Total |
| D: Discount | April 3 / 38 / | / 38 | | |
| D: Broken | 4 / 38 / 2 / 74 | | | |
| | 5 / 30 / 4 / 100 | | | |

GREY IRON CASTINGS
No. C 530 Crank Arm

| ORDERED | | | | MADE | | | | | | ISSUES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | Qty | Total | Date | Quantity | Discount or Broken | Total | Date | Qty | Date | Qty | Total | Date | Qty | Total |
| April | 1 | 100 | 100 | April 3 | 38 | | 38 | | | June 5 | 60 | 60 | | | |
| | 10 | 200 | 300 | 4 | 38 | 2 | 74 | | | 6 | 50 | 110 | | | |
| May | 10 | 500 | 800 | 5 | 30 | 4 | 100 | | | 7 | 75 | 185 | | | |
| | | | | 6 | 55 | 2 | 153 | | | 8 | 25 | 210 | | | |
| | | | | 7 | | 28 | 125 | | | 9 | 40 | 250 | | | |
| | | | | 8 | 125 | | 250 | | | | | | | | |

(616) BRASS FOUNDRY COSTS.

A brass foundry manufactures such articles as cash registers, musical instruments, pipe organs, etc.

Form A is an order from the order department to make a specified number of castings, as per pattern furnished. The final cost will be divided amongst labor, material and expense, the usual distinction in a manufacturing business. Productive labor includes the time of molders and core makers,

Date 8-1-07

ORDER ON BRASS FOUNDRY

Make 7000 castings Mixture #3
Interlocking Sprung Clips
Order No. 16705 Folio No. 237
SCHEDULE - 8-6-07
REMARKS Respond daily deliveries of not less than 1000 castings Destination Store 3

DELIVERIES TO STORE ROOM

| Date | Quantity | Weight | Remarks | Date | Quantity | Weight | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

DELIVERIES TO STORE ROOM

| Date | Quantity | Weight | Remarks | Date | Quantity | Weight | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

This order to be returned to the Material Order Dept after last delivery

BRASS FOUNDRY TIME
-DAY- WORK- TICKET-

| | | | |
|---|---|---|---|
| JOB NO | 2346 | Week Ending | EMPLOYEE'S NO. 796 |
| STARTED | 6-9-07 | | NAME W. Dean |
| FINISHED | 6-15-07 | Wage 18c/hr | RATE 37½ per Hr. |

CLASS OF WORK ____ Die Work

| Sun | Mon | Tues | Wed | Thurs | Fri | Sat | Total Hours |
|---|---|---|---|---|---|---|---|
| | 9 | 5 | 9 | 9½ | 8 | 4 | 47½ |

LABOR $16.63
LABOR LOADING
N. Rekeit - Foreman DATE 6/15/07

and in some foundries specific division numbers are used, such as 1321-R for bench moulders; 1322-R for machine molders, etc.

Daily time tickets are used as per Form 3. They are summarized weekly or monthly, the various divisions being charged with expense incurred.

There is also a code number and name to each mixture, such as hard





CASTING RECORD

MIXTURE #12 SOFT BRASS

| INPUT | | | | | | | | | | OUTPUT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | Brass | Tin | Lead | | Total | Gates | Total Input | Heats | Parts | Date | Remarks | Floor Work | Tub Work | Machine Work | Total Output |
| 120 lbs | 30 lbs | 5 lbs | 10 lbs | | 165 | 150 | 315 | 1 | — | 8/2 | | — | 300 lbs | | 300 lbs |
| 150 | 38 | 7 | 12 | | 207 | 75 | 282 | 2 | — | 8/8 | | | 250 | | 250 |
| — | — | — | — | | — | — | — | 1 | | | | | | | |
| — | — | — | — | | — | — | — | 2 | | | | | | | |
| | | | | | | | | | | | | | | | |

FORM C.

| INPUT | | | | | | | | | | OUTPUT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Copper | Brass | Tin | Lead | | Total | Gates | Total Input | Heats | Parts | Date | Remarks | Floor Work | Tub Work | Machine Work | Total Output |
| | | | | | | | | | | | | | | | |

FORM C, REVERSE.

brass No. 10; phosphor bronze No. 33. The metal used in making up these various mixtures is entered on a record card, Form C, which shows the name and number of the mixture, input and output gates used, and number of heats required.

Labor loading is based on expense time turned in by the expense employes. Material loading is based on expense incurred in connection with material.

Form E is the destination card with tracing record and department debits and credits also recorded.

STORE ROOM RECORD OF DELIVERIES

Checked by N.D. Entered on Card by B.L.C.

Order # 16745 From -- Brass Foundry

| Date | Amount Received | Date | Amount Received | Date | Amount Received | Date | Amount Received | Date | Amount Received | Date | Amount Received |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/24 | 250 | | | | | | | | | | |
| | 250 | | | | | | | | | | |
| | 400 | | | | | | | | | | |
| 6/3 | 200 | | | | | | | | | | |
| | 150 | | | | | | | | | | |
| | 175 | | | | | | | | | | |
| | 150 | | | | | | | | | | |
| | 200 | | | | | | | | | | |
| | 300 | | | | | | | | | | |

FORM F.

Form F is a delivery sheet. When final deliveries have been made, this sheet is sent to the order department where, by the perpetual inventory system, a completed record is kept of material ordered, received, deliveries made, etc.

## (617) FRATERNAL ORGANIZATIONS.

MEMBERSHIP RECORD.

This record is devised on the loose-leaf principle, both sides being utilized. The names are arranged alphabetically by denominations and by divisions. For instance, James Harris of Chicago is enrolled as a contributing member at the age of 35 for insurance of $1,000.00. A guide card indicates the denomination $1,000.00. The alphabetical index locates the letter H, and the card thus located contains full information, such as indicated in the illustration.

These cards are printed in different colors and supplied with tabs numbered from one to ten, tab No. 1 indicating age 20; tab No. 2 age 21, etc. A white card indicates 20 to 29 inclusive; a blue card 30 to 39; a yellow card 40 to 49; and a pink card 50 to 59.

## (618) FREIGHT.

An account representing cost of transportation of merchandise purchased or merchandise sold.

The freight on purchases belongs to the Trading Account. The freight prepaid on goods shipped to customers is a selling expense, and does not enter into the cost of production.

## (619) FREIGHT AND DISCOUNT.

See Discount.

## (620) FREIGHT BILLS.

TRANSPORTATION REGISTER.

A general transportation controlling account is carried, to which is posted at the end of each month the total amount of cash paid for transportation and





$1000

Form 1

COUNCIL NO. 1070

| Asst. No. | Month | Amt. Paid | | Asst. No. | Month | Amt. Paid |
|---|---|---|---|---|---|---|
| | | | | | | |

Form 2

H

Form 3

NAME COUNCIL NO.

| | Mo. | Day | Yr. | Class Amt. | Rate | Age Assessed | Cert. No. |
|---|---|---|---|---|---|---|---|
| Date of Birth | | | | | | | |
| Date of Certificate | | | | New Amt. | New Rate | Date Changed | New Cert. No. |
| Date of Initiation | | | | | | | |
| Suspended | | | | Days Susp'd | New Rate | Occupation | |
| Reinstated | | | | | | | |
| Suspended | | | | Days Susp'd | New Rate | | |
| Reinstated | | | | | | | |
| Withdrawn by Card | | | | Transferred from | | | |
| Admitted by Card | | | | | | No. | |
| Appelled | | | | To | | | |
| Died | | | | | | No. | |
| Duration of Mem. | | | | | Cause of Death | | |
| Place of Death | | | | | | | |

Form 4

Suspended Current

| Deaths Names | Date | Amt. | Deaths Names | Date | Amt. |
|---|---|---|---|---|---|
| | | | | | |

Form 1

New Business

| Withdrawals. Names | Date | To No. | Withdrawals. Names | Date | To No. |
|---|---|---|---|---|---|
| | | | | | |

BENEFICIARIES

| NAME | RELATIONSHIP | DATE CHANGED |
|---|---|---|
| | | |

Form 2

| First Assessment Paid | | | Last Assessment Paid | | | Total Paid | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Suspended | | | Reinstated | | | Suspended | | | Reinstated | | |
| Mo. | Day | Yr. | Mo. | Day | Yr. | Mo. | Day | Yr. | Mo. | Day | Yr. |
| | | | | | | | | | | | |

Form 3 — Claim Paid

transportation charges, as per footing of general transportation column in Cash Book. This Controlling account is then balanced by charges to the various Trading accounts, as per totals shown in distribution by transportation register. The column headed Account Sales refers to charges for freights prepaid on customer's account which have been permitted to go to the credit of Sales during the month and are thus utilized.

Each freight bill has a special serial number and the entries on the register are made in consecutive numerical order. This transportation voucher number is also noted on the invoice which covers the shipment.





TRANSPORTATION REGISTER.

| General Transportation | | | Over | | | | | | | | | Distribution | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Acct. Sales | | | | | | | | |
| Date | Check No. | Amount | Serial No. | Audit ✓ | Cost Sheet | Date Inv. | Description (in brief) | Bot. F.O.B. or Del'd | Transp. Co. Many | Rail | Disposition of Voucher | Name | Address | Requisition No. | Amt. | | | | | |

(621) **FREIGHT RATES—HOW TO FIND.**

The card illustrated (Form 1), is eight inches wide by five inches high, and one card is made out for every town to which shipments are made, the routing is indicated on the second line. Below this, under the heading "commodities", is a complete list of all the products handled. To the left of this column under "date" and "party quoted" is filled in the information as to the time and the source of the quotation. The freight rate quoted on the different commodities is entered in the proper column, according to its classification—1, 2, 3, R26, 4, 5, etc. Plenty of space is set aside for remarks under that heading.

TOWN Ganesville, Ohio

ROUTE P. RR. + Big H

| 1908 DATE | PARTY QUOTED | COMMODITIES | CLASS | RATE IN CENTS PER 100 LBS. 1. | 2. | 3. | R-26 | 4 | 5 | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| Jan 3 | J.W.R. | IRON WIRE CLOTH | | | | .27 | | | | |
| " | " | BRASS WIRE CLOTH | | | | .27 | | | | |
| Feb 20 | H.B. | IRON WIRE NETTING | | | | | .22 | | | |
| " | " | LOCOMOTIVE NETTING | | | | | .22 | | | |
| " | " | ELEVATOR CARS K. D. | | | .35 | | | | | |
| " | " | ELEVATOR ENCLOSURES | | | | .27 | | | | |
| | | IRON RAILING | | | | | | | | |
| | | IRON STAIR WORK | | | | | | | | |
| | | BRASS DOORS & | N. O. S.-1. | | | | | | | |
| | | THRESHOLDS | SAME AS CENTER-3 | | | | | | | |
| | | ARC'L IRON N. O. S. IRON DOOR FRAMES & | N. O. S.-1 | | | | | | | |
| | | BRONZED ARC'L IRON WORK | SAME AS CENTER-3 | | | | | | | |

VAUGHAN & CRISE MFG. CO., ROCHESTER, N. Y.

Cement A#1
(4th Class)

| NEW YORK | | NEW JERSEY | | VIRGINIA | | WEST VA. | | NEW ENGLAND | |
|---|---|---|---|---|---|---|---|---|---|
| Albany | 15½ | Boonton | 18 | Alexandria | 24 | Charleston | 21 | Bradford | 20½ |
| Auburn | 9 | Camden | " | Norfolk | 25 | Clarksburg | 23 | Bridgeport | " |
| Buffalo | 8 | Dover | " | Richmond | 25 | Fairmont | 23 | Bridgewater | " |
| Binghamton | 15 | Jersey City | " | Roanoke | 30 | Grafton | 23 | Canton | " |
| Cohoes | 18½ | Newark | " | | | Huntington | 21 | Davenport | " |
| Cortland | 12 | Paterson | " | | | Parkersburg | 20 | Everett | " |
| Depew | 8 | Phillipsburg | " | | | Sutterville | 20 | Lynn | " |
| Dunkirk | 16 | Trenton | " | | | Wheeling | 18 | New Haven | " |
| Elmira | 12 | | | | | Bluefield | 24½ | Phillipdale | " |
| Lockport | 8 | | | | | | | Providence | " |
| Poughkeepsie | 18 | | | | | | | Somerset | " |
| Rochester | 9 | | | | | | | Worcester | " |
| Rome | 11 | | | | | | | | |
| Syracuse | 9 | | | | | | | | |
| Schenectady | 16 | | | | | | | | |
| | | DELAWARE | | MARYLAND | | KENTUCKY | | | |
| | | Dover | 24 | Baltimore | 18 | Ashland | 21 | | |
| | | Wilmington | 18 | Cumberland | 20 | Covington | 21 | | |
| | | | | Hagerstown | 19 | Louisville | 25 | | |
| | | | | | | Newport | 21 | | |

These cards are kept in the card drawer arranged according to states, the towns in each state in alphabetical order. One of the principal advantages of this system is the ease with which it may be installed. No extensive preparation or clerical work is necessary. You can begin by making out a card for the first town you have occasion to get a freight rate on and putting in cards for other towns as you come to them.

Another way of accomplishing the same object is, instead of making out separate cards for the towns, to make out separate cards for the commodities, provided you only have occasion to ship to comparatively few points. On the card illustrated herewith (Form 2), which is eight inches wide by five inches high, a separate card is made out for each commodity, in this case the commodity being cement. This commodity comes under classification No. 4. The cards are printed for the states to which shipments are made and beneath each state is listed the names of the towns. Opposite each town the

Mobile

STATE Ala.
DELIVERING R. R. Cent. of Ga. L & N
DELIVERING EX. CO. Southern
FREIGHT ROUTING So. States Dept. Clyde
EXPRESS ROUTING Adams

| FREIGHT RATES | | 1 | 2 | 3 | 4 | 5 | 6 | EXPRESS RATE |
|---|---|---|---|---|---|---|---|---|
| | RAIL | 148 | 127 | 112 | 87 | 80 | 66 | |
| | WATER | 134 | 115 | 101 | 86 | 72 | 60 | $4.00 |





freight rate is entered. As other towns are added there is plenty of room to enter them in the columns. The reverse side of this card is printed with the names of Ohio, Michigan, Indiana, Pennsylvania and Illinois. Where the conditions of the business permit it, no system of keeping information is so convenient as this one.

The next system is the most comprehensive and extensive of them all as will be seen by the illustration, (Form 3). The card is five inches high by three inches wide and made with projecting tab. The concern by whom this system is used have occasion to make shipments by freight and express to practically every town in the United States. One of these cards is made out for every town. All the towns of each state are arranged together in alphabetical order. Under the numerals 1, 2, 3, etc., are rail and water rates for the entire six classifications and the express rate is entered in its proper position. Beneath this there is plenty of room for any additional information that might be valuable as a part of the record.—*R. Cole.*

### (622) FUNDED DEBT.

A term sometimes used to describe liabilities secured by bonds, for the redemption of which a sinking fund is established.

### (623) FURNITURE AND FIXTURES.

An account representing the value of furniture and fixtures owned by a business.

### (624) FURNITURE BUSINESS ACCOUNTING—RETAIL.

A convenient form of Stock Ledger is shown on form 1. Stock received is posted to the stock Ledger from receiving clerk's O. K.'d copy of original order. This O. K.'d copy is attached to purchase invoice.

All retail sales are reported by a salesman on a form of duplicate sales ticket, as per form 2. The small right-hand coupon is perforated, and in case of a cash sale the left portion is stamped and given to the customer. The right-hand coupon is placed on file according to character of sale, and serves both as a check on cash receipts and the shipping department.

ARTICLE _____ STOCK
Above
High
Below
Low

| Order Number | From | Date Ordered | Quantity | Date Received | Quantity Received | Date Sold | Quantity Sold | Balance | Average Cost Freight | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

DELIVER TO 1750

Mrs Jane Doe

12 So. Logan

Remarks Thursday A.M.

| Quantity | Lot No. | Article | | |
|---|---|---|---|---|
| 6 | 1214 | D.R Chairs Leather S G O | 15 | - |

(CASHIERS OFFICE AUG. 4 1906 PAID.)

1750

Cash 15 00

C O D

Charge

Salesman Barry

Office Stamp

(CASHIERS OFFICE AUG 4 1906 PAID)

BANK

CHECKS

| Date | Check Number | Payee | | Amount | Charge Unpaid Accs | Charge Miscel | Account | Memo of Discts Taken | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

DEPOSITS

| Date | Item | | Total | F Sales | Customers | Account Credited | Miscel | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Each customer is given a loose leaf account. This is made in duplicate, the original going to the customer, and the carbon copy is placed in the post binder and given a page number. The footing of this page makes one posting to the customer's account at the end of the month, no matter how many different charges he has had. A recapitulation is made of the loose leaf accounts in order to make the proper credit to Merchandise Account.





Chart of Classification.

General Ledger

**Assets**

- Mdse. — Charged with total cost of goods purchased and freight; Charged with returns from customers at cost; Credited " " to wholesalers at cost; Credited " cost of Furniture Sold; Balance = Inventory
- Customers' account — Charged with total goods sold to customers; Credited with returns from customers; " Cash payments on a/c (total "customers" column on deposit register); Balance = Total due on customers accounts
- Various accounts representing assets owned by company

**Liab.**

- Unpaid Accounts — Credited - with total Vouchers issued; Charged - with total of cash paid on vouchers; " with discounts and allowances on vouchers; Balance due to creditors.
- Capital Stock
- Bills Payable
- various Liabilities of Company

**Expense & Earnings Loss & Gain a/c**

- Cost of Sales — Charged with cost of goods sold
- General Expense and its various subdivisions
- Furniture Sales — Credited with total sales as per sales tickets
- Discounts earned

(error should be made within ten days after receipt of goods. To receive prompt attention, all communications should be addressed to the firm.)

THE VAN DYK FURNITURE CO.

HOME FURNISHERS AND DECORATORS.

298 and 300 Main St.

Sold to Mr Henry Gary
1233 Totowa Ave

Paterson, N.J. June 30 1906

Terms Strictly Net—No Discount Allowed Folio

| Date | | Mdse | Crockery | Total | Credits |
|---|---|---|---|---|---|
| 4 | 1 Dresser | 25 00 | | | |
| | 1 Bed | 20 00 | | 45 00 | |
| 5 | 6 Chairs 1.50 | | | 9 00 | |
| | | | | 54 00 | |

A separate petty Cash Book is used for expressage, expense and other small amounts.

The totals are entered in the general Cash Book.

The chart of classification will no doubt be appreciated.

## (625) FUTURES.

A term applied in Stock Exchange transactions to the sale of commodities for future delivery.

DR. CASH

| Date | Fol. | Mdse. | Cashier | General | Balance |
|---|---|---|---|---|---|
| | | | | | |

CASH CR.

| Date | Fol. | Expense | Ad'g. | Cashier | Mdse. | General |
|---|---|---|---|---|---|---|
| | | | | | | |

Options on future means that the privilege is secured of purchasing or delivering at a specified price within a specified number of days.

### (626) GAIN.

The profit made on a business transaction.

The accretion of value of property during a given period. (See also "Profit and Loss.")

### (627) GAS, ELECTRIC LIGHT AND POWER BUSINESS—SMALL SIZE.

A Lighting Register is arranged with two short leaves, so that one list of names can run six months.

The card system of application is used for installation of services and also for testing meters, meter repairs, arc lights, etc. The meters are

Meter Test Card. Electrical Dept.

Meter No. Make Maker's No.
Amp. Volts Constant Index
Complaint
Date Signed

| Watts | Power Factor | Revolutions | Time | Per Cent S | Per Cent F | Repaired and Re-adjusted to register |
|---|---|---|---|---|---|---|
| | | | | | | Within per cent on Watts |
| | | | | | | and Watts |

Remarks
Tested at
Work Order Date By

The Gas Electric Light & Power Co.
Van Wert, O.
Name of Consumer

This is the form used for meter readings - the right for readings for readings or irregular dates - when consumers move out or in

| Date | Const. | Number | Size | Make |
|---|---|---|---|---|
| | | | | |

| Date. | Index | Date | Index |
|---|---|---|---|
| | | | |

March
February
January
December





No. .....
M .....
Contract .....
Watt Hrs .....
Total .....
Discount .....
Net .....
Delinquent .....
Paid .....
..... 190

**The Gas-Electric Light and Power Company.**

No. ..... VAN WERT, OHIO ..... 190
M .....

To Light as per Contract ..... .....
To ..... Watt Hours Electricity at ..... per M.
Meter Constant ..... Per Cent. Discount
Present Reading ..... 10 per cent. discount if paid
Previous Reading ..... before the 5th of Month
Gross Difference .....
Net Watt Hours ..... Delinquent last Month
Amount Paid

*Received Payment of* The Gas-Electric Light and Power Company.
$ ..... By .....

The Gas-Electric Light and Power Company
Van Wert, Ohio
Engineer's Report for 24 Hours Ending Noon ..... 190

| Time | 1 AM | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 AM | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit On | No. 1 Com. | | | East St. | | | West St. | | | No. 1 Inc. | | | No. 2 Inc. | | | | | | | | | Remarks. | | |
| Off | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Hours | | | | | | | | | | | | | | | | | | | | | | | | |
| No. Lamps | | | | | | | | | | | | | | | | | | | | | | | | |
| K.W. Hours | | | | | | | | | | | | | | | | | | | | | | | | |

Boilers

| No. 1 Started | Stopped | Hrs. Run | No. | Started | Stopped | Hrs Run |
|---|---|---|---|---|---|---|
| | | | 1 | | | |
| 2 | | | 2 | | | |
| 3 | | | 3 | | | |

Engines

| No. 1 | No. 2. |
|---|---|
| | Engineer On |
| | Engineer Off |
| | Fireman |

| Time | Temp. Outside | Temp. Flow | Temp. Return | Gauge Pressure | Temp. Feed Water | Steam Pressure | Remarks |
|---|---|---|---|---|---|---|---|
| 1 A.M. | | | | | | | |
| 11 A.M. | | | | | | | |
| 3 P.M. | | | | | | | |
| 7 P.M. | | | | | | | |
| 11 P.M. | | | | | | | |
| 3 A.M. | | | | | | | |

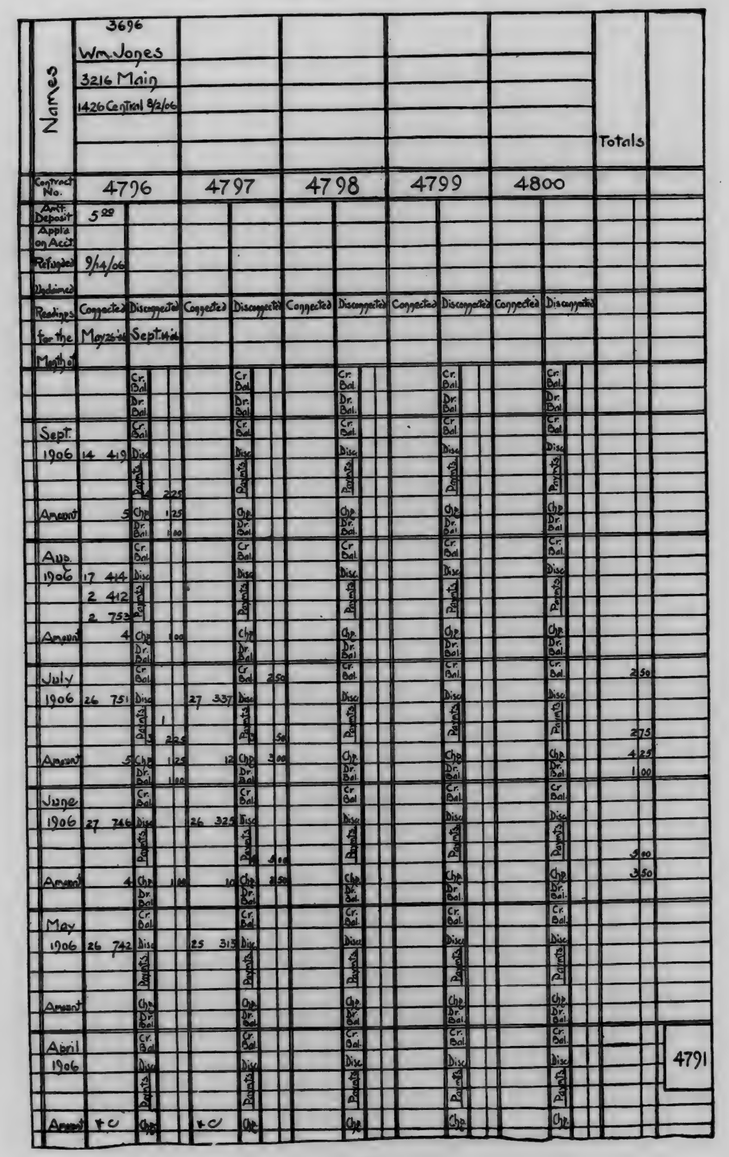
Water Meter Readings

| | Net Pounds | Coal | Gross | Tons | Net | Bbls. Cyl. Oil | Sh. Reg. Oil | Gals. Kerosene | Pounds Waste | Arc Trimmer | Packing | Lamps |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Evaporation | | Tare | | | | | | | | | |

Cond. Feet

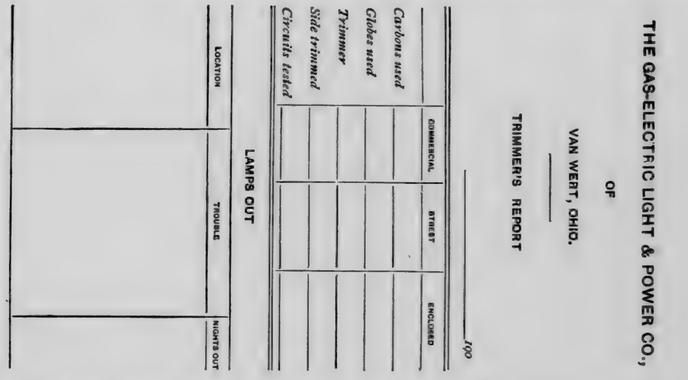
No. 2006 ..... Meridian

| Meter No. | Name | Cont. No. | Date | Index | Make Up |
|---|---|---|---|---|---|
| 110476 | John Smith | 4763 | Oct. 10 | 000 | |
| | | | Sept. | 000 | |
| 1/4-110381 | Meter Changed 3/4ths | 4763 | Aug. 4 | 880000 | W.C. |
| | | | July 5 | 876000 | W.C. |
| 3/4-110381 | Wm. Brown Out 1/4th | 3678 | June 3 | 873000 | W.C. |
| | | | May 2 | 869000 | B.C. |
| 57-113762 | S.E. Clark | 4964 | April 5 | 864000 | N.H. |
| | | | Mar. 3 | 857000 | W.C. |
| | | | Feb'y 3/4 | 853000 | B.C. |
| | | | Jan. 4 | 851000 | W.C. |
| | | | Dec. 5 | 352000 | W.C. |
| | | | Nov. 4 | 347000 | W.C. |
| | | | Oct. 7 | 341000 | W.C. |
| | | | Oct. 10 | 000 | |








read on the last few days of each month, and the cards are arranged geographically. The register is arranged in the same manner, so that a street or district can be referred to without trouble.

The representative accounts used are as follows:—

Street Arc Lighting
Commercial Arc Lighting
Incandescent Lighting

Unpaid bills of the previous month are transferred to Expense account.

The engineer makes a daily report, also the trimmer, and a voucher register is used.

Another system used by a gas company includes a ledger with a numerical index at the margin, which permits the book to be opened at the account desired with accuracy and despatch. This is ruled for ten accounts to the double page, the accounts being arranged vertically, and each account divided into twelve months. See illustration.

The reading card is devised on the loose leaf principle, as per illustration, and can be conveniently carried in the coat pocket. By using only one card for each location and entering each new consumer's name and contract or account number thereon the reading, as shown by the "turn on slip" of each customer must correspond with the reading reported on the card when the gas is turned off.

### (628) GENERAL LEDGER.

A ledger intended solely for representative, nominal, balancing, or controlling accounts, and personal accounts which are not sales or purchase accounts.

General and Private ledgers are practically synonymous so far as their titles and uses are concerned, but in some large establishments the General ledger is used exclusively for expense accounts. (See Private Ledger.)

## (629) GOOD-WILL.

Good-will is "the value of that reputation which a business has acquired during its continuance, which induces the confidence, or expectation, that the same, or an increasing, patronage will continue to be extended so long as the business is conducted in the same place upon the same principles."

"It is usually considered a speculative asset whose actual value depends entirely upon the prosperous continuance of the business to which it belongs, and its capacity to bestow upon the purchaser more than he could earn by his own unaided exertions. On account of its extreme liability to fluctuation it is considered preferable to write off a certain proportion year by year until the account is extinguished. Frequently, however, good-will is an inflation of the purchase price of property acquired by a corporation and paid for by paid-up stock, and in such cases it remains undisturbed until the directors order a re-valuation of the property, when it may probably be charged off as 'depreciation.'"

In considering good-will it is well to remember that American business men do not take any particular interest in it until they wish to transfer a partnership, or secure a new partner, or sell out to a corporation.

At such time partners, or the persons interested, desire to take the utmost advantage of the incoming partner, or purchaser, or of the consolidation, from which they desire to receive as much stock as possible in payment for their interest. On these occasions the question of good-will becomes a very important factor. For this reason we append a few standard definitions of good-will, together with illustrations as to how it should be treated on the books of account, as in very many cases it is undoubtedly a real and tangible asset, without recognition of which the vendors would not consider the sale.

"Good-will as an asset, is one which is never or rarely considered as an available asset, in considering the value of the assets of a company. It may, however, be considered as a legitimate asset when it represents the cost of the good-will paid when acquiring a business, even if the shares of the company then starting have to be considerably 'watered' in consequence of the exorbitant or fancy value at which this good-will has been placed. Frequently, when a partner is retiring, the firm has to pay a sum for his good-will, which then usually appears as an item in the future Balance Sheets."—*Manual for Accountants, Canada.*

"Good-will may be variously described as:

"The patronage of the public.

"The advantages derived from an established connection and reputation, and the benefit accruing to a business by reason of the support accorded by its customers, and the likelihood of the continuance of such support."

"The question of the depreciation of good-will is one upon which considerable difference of opinion exists. It has been pointed out that, properly speaking, good-will does not depreciate, and that its inevitable fluctuations should not disturb the amount of the trade profits. On the other hand, the gradual extinction of its item 'good-will' greatly strengthens the position of





any company, and is certainly the most permissible method of building up a secret reserve."

The usual definition of good-will is the benefit arising from connection and reputation, the probability of the old customers going to the new firm which has acquired the business. It is based in one form or another upon the earning capacity of the business to be acquired, and in this connection it is important to remember that "the purchaser pays for something which places him in the position of being able to earn more money than he would be able to do by his own unaided exertions." In some businesses the price of the good-will is based upon the trade done, but the more usual course is to base it upon the average net profit earned in the past.

"It is not very usual for the item of good-will to appear in the books of a trading firm at all, but when it does appear it should appear at the actual cost price, and should not be treated as a wasting asset subject to depreciation; indeed, it would be quite incorrect to write off good-will out of revenue."

"The advantage or benefit which is acquired by an establishment beyond the mere value of the capital, stock, funds, or property employed therein, in consequence of the general public patronage and encouragement which it receives from constant or habitual customers on account of its local position, or common celebrity, or reputation for skill or affluence or punctuality, or from other accidental circumstances and necessities, or even from partialities or prejudices."—*Story on Partnership, Section 99.*

"If a person who has previously been a partner in a firm sets up in business on his own account and appeals generally for customers, he only does that which any member of the public may do, and which those carrying on the same trade are already doing. It is true that those who were former customers of the firm to which he belonged may of their own accord transfer their custom to him; but this incidental advantage is unavoidable, and does not result from any act of his. He only conducts his business in precisely the same way as he would if he had never been a member of the firm to which he previously belonged. But when he specifically and directly appeals to those who were customers of the previous firm, he seeks to take advantage of the connection previously formed by his old firm, and of the knowledge of that connection which he has previously acquired, to take that which constitutes a good-will away from the persons to whom it has been sold, and to restore it to himself."—*Hershell.*

"The good-will of a trade is nothing more than the probability that old customers will resort to the old place."—*Eldon.*

"The value of that reputation which a business has acquired during its continuance, which induces the confidence or expectation that the same, or an increasing patronage will continue to be extended so long as the business is conducted in the same place upon the same principles."

With regard to the treatment of good-will on books of account, we quote the following:

"Good-will, if inserted in the books at all, is very much best left at its original value, no attempt being made to write it off gradually. On the

other hand, if the books are those of a private firm, it will probably be convenient to write the whole amount off against capital. It is quite incorrect to write good-will off against profits."

Opinions are divided as to whether it is desirable that good-will should be written down periodically or not, but all accountants are agreed that under no circumstances should it be written up, unless something further has been actually acquired—that is to say, the maximum figure at which good-will should appear in a Balance Sheet is cost price.

While the value of good-will is frequently computed on the basis of three years' net profits of the business, Dicksee makes a chart which shows conclusively that the variations of a business are irreconcilable, and that good-will is actually a fixed asset and not a speculative one. He says:

"This latter statement may appear to the uninitiated as being somewhat startling, for there is no doubt a very general impression among those who are not very familiar with accounts that all the items set down on the right-hand side of a Balance Sheet are actual assets, and are stated at figures which are supposed to represent a reasonable estimate of their values at the date of the accounts. Certainly, so far as is reasonably practicable, the value of all 'floating assets' should be stated in Balance Sheets on the basis of what they are actually worth to a going concern at the time of balancing, but it has been decided by Mr. Justice Romer that in arriving at the profits of an undertaking it is incorrect to take into account fluctuations in the value of what his Lordship called 'capital assets,' and what accountants would call 'fixed assets.' There can be no question whatever but that good-will is a fixed asset, and not a floating asset; that is to say, it comes under the category of something which has to be acquired by an undertaking in order to enable it to carry on its business. Thus, there is a legal authority for holding the view that fluctuations in the value of good-will do not affect profits."

There are many businesses which are built up with great effort after years of labor, and the connection which results in a certain amount of orders being not only received but guaranteed to be reserved for the purchaser, is a valuable commodity on which a price can certainly be set. The value of a connection is probably considered in every commercial transaction, but no particular rule to be followed in all cases could possibly be formulated. It is generally a question as to how much the vendors can obtain and for how little the purchasers can make the deal. In case of dispute arising between the two parties, however, it may be well to know that there is a commercial custom which fixes the amount of the net profits for three years as a fair valuation.

The value of good-will is supposed to consist of the profitable nature of the business to be acquired, but taking the case of a corporation purchasing the business of a single proprietor it will frequently be found that while the business has been in existence the balance of the profit and loss account has been credited to the proprietor's investment account without making any allowance for the value of his time in managing and supervising.

In some businesses this is a very important omission. We will suppose that the original proprietor is engaged by the new corporation at a large salary to





continue the management of the business, and is also paid for the good-will of the business a large amount in stock of the corporation. It is evident that, under the circumstances mentioned, the purchasing corporation would have much the worst of the deal.

Good-will being frequently valued on the basis of so many years' purchase of average annual profits, it is very desirable to ascertain whether the machinery, for example, may soon have to be replaced on account of general wear and tear not covered by depreciation reverse, or being old-fashioned. Everything being legitimate and the values claimed being susceptible of verification, the number of years' purchase varies from four to five years, according to special conditions.

Referring to the difference of opinion among accountants as to the treatment of good-will on the books of account, it can safely be said that whether it is advisable or not to write off a certain amount of this asset each year from current profits it will certainly come out of capital invested should the corporation be wound up.

### VALUATION.

"Not only the value of a good-will, but also the method adopted in arriving at the value, must necessarily depend upon circumstances, for the annual profits of a given business ascertained in the ordinary way will not, as a rule, be the precise basis for the valuation, while the number of years' purchase also varies considerably, depending so much upon the particular circumstances affecting each business. The annual profits to be taken as the basis of valuation (assuming same to be agreed upon as a factor) require to be carefully examined and adjusted where considered necessary, so as to make proper allowance for—

The skilled supervision or other service necessary for the maintenance of the business, which has been exercised in the past by the proprietors. This, on a sale of the good-will, would have to be undertaken either by the vendors (at a salary) or by the purchaser himself, or by a manager at a salary, and should be allowed for accordingly.

The interest on the capital which would necessarily be employed in the business (including in the case of purchase the amount about to be paid for the good-will). The capital employed to purchase and carry on the business would need to be withdrawn from some other income producing position, and allowance for the resultant loss of income must therefore be made.

But it is advisable when negotiations for the purchase of the good-will of a business are proceeding upon a basis of so many years' purchase of the average annual profits, to state specifically not only the number or years' purchase, but also the number of years over which the annual average is to be computed, the rate of allowance (if any) to be made for the proprietors' services, and the rate of interest to be allowed on the capital to be employed (including the cost of good-will), and how special outgoings are to be treated in ascertaining the amount of the average annual profit.

The number of years' purchase of the annual profits (as adjusted) will vary according to circumstances, and will depend mainly upon the probability of the continuity of the business with similar results to those of the past, notwithstanding the change in the proprietorship or management."

The value of good-will is supposed to consist of the profitable nature of the business to be acquired, but taking the case of a corporation purchasing the business of a single proprietor it will frequently be found that while the business has been in existence the balance of the profit and loss account has been credited to the proprietor's investment account without making any allowance for the value of his time in managing and supervising.

In some businesses this is a very important omission. We will suppose that the original proprietor is engaged by the new corporation at a large salary to continue the management of the business, and is also paid for the good-will of the business a large amount in stock of the corporation. It is evident that, under the circumstances mentioned, the purchasing corporation would have much the worst of the deal.

Good-will being frequently valued on the basis of so many years' purchase of average annual profits, it is very desirable to ascertain whether the machinery, for example, may soon have to be replaced on account of general wear and tear not covered by depreciation reserve, or being old-fashioned. Everything being legitimate and the values claimed being susceptible of verification, the number of years' purchase carries from four to five years, according to special conditions.

Referring to the difference of opinion among accountants as to the treatment of good-will on the books of account, it can safely be said that whether it is advisable or not to write off a certain amount of this asset each year from current profits it will certainly come out of capital invested should the corporation be wound up.

It is difficult, if not impossible, to give a definition of good-will which will be satisfactory under all conditions, because of the varying classes of businesses, and the different circumstances connected with each business.

Good-will depends sometimes upon locality or particular premises or reputation or quality of goods or simply the name.

All good-will is property and may be made the subject of sale, gift, mortgage or bequest.

"Good-will is composed of a variety of elements. It differs in its composition in different trades and in different businesses in the same trade. One element may preponderate here and another element there. For my part, I think that if there is one attribute common to all cases of good-will it is the attribute of locality, for good-will has no independent existence. It cannot subsist by itself. It must be attached to a business. Destroy the business and the good-will perishes with it."

Where the connection of a business continually increases, it is evident that the value of good-will increases in the same proportion.





Where a patent is improved upon, and additional patents taken out, it is also evident that the value of the patent is in proportion to the demand for the articles patented.

In cases of this kind, therefore, it is not necessary to write off the asset, but a very satisfactory method to adopt is to establish a reserve, crediting the reserve account, and debiting profit and loss with a certain agreed amount per annum.

It will be evident that by adopting this course, if the good-will, or the patent, maintains or increases its value, the reserve can be distributed among the stockholders at any time. If the good-will or patent depreciates, the reserve will offset the depreciation.

There are many businesses which are built up with great effort after years of labor, and the connection which results in a certain amount of orders being not only received but guaranteed to be reserved for the purchaser, is a valuable commodity on which a price can certainly be set. The value of a connection is probably considered in every commercial transaction, but no particular rule to be followed in all cases could possibly be formulated. It is generally a question as to how much the vendors can obtain and for how little the purchasers can make the deal. In case of dispute arising between the two parties, however, it may be well to know that there is a commercial custom which fixes the amount of the net profits for three years as a fair valuation.

## (630) GRAIN ELEVATOR BUSINESS ACCOUNTING.

That process of handling of grain, known as elevation, may be divided under four heads, each having its own peculiar conditions, and calling for a somewhat different system of accounting. The four divisions are thus stated: 1, from wagon to car; 2, from car to boat; 3, from car to car; 4, from boat to car.

CAR RECORD

| Car No. | Car Init. | a/c of | Grade of Grain | Reported | Inspected | In Yard | Unloaded | Loaded | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 4070 | C H D | Bripps & Co. | 3 Y. Corn | 1/12 | 1/15 | 1/18 | 1/21 | 1/21 | |
| 4085 | D S S A | Stokes & Co. | 3 W. Oats | 1/13 | 1/15 | 1/20 | 1/21 | 1/21 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

FORM 1.

CHAMBER OF COMMERCE
GRAIN INSPECTION
Test ____ Buffalo Jan. 15 1907
Initial C.H.D. No. 4070
Grade NO. THREE (3) YELLOW CORN
Cars graded subject to re-inspection when ordered will be marked "XX"

CHAMBER OF COMMERCE
GRAIN INSPECTION
Test 28 Buffalo Jan. 15 1907
Initial D.S.S.A. No. 4085
Grade NO. THREE (3) WHITE OATS
Cars graded subject to re-inspection when ordered will be marked "XX"
XX
Chief Inspector.

FORM 2.

OUT
Car No. 12672 Init. L.V. Ex. Car 4085
Grain 3 W. Oats
Scale 2 Date 1/21/07
Weight 40000

IN
Act. of S+Co Car No. 4085 Init. DSS
LBS. Grain 3 W. Oats
Scale 1 Date 1/20
Bin 4 Weight 40000

OUT
Car No. 6459 Init. TDS Ex. Car 4070
Grain 3 Yellow Corn
Scale 4 Date 1/21/07
S. Tfr Weight 56000

FORM 3.

The first consists of entries connected with the country station, to which the grower brings his grain there to be bulked until sufficient of one quality or grade be accumulated, when one or more cars are loaded for further shipment.

The second consists of entries connected wtih the unloading from cars and transferring to lake or sea-going boats.

The fourth consists of entries connected with the opposite process, the unloading from boats and the subdividing of the cargo into car loads for overland shipment and disposition.

The third division consists of entries connected with the transferring of grain from car to car; and it is to this last-named process that this paper is limited.

The question naturally arises, why the necessity of this process of car to car transference. A brief consideration of this query will prepare the way for intelligent consideration of the system of accounting connected therewith.

When grain is loaded first into cars from the country station, it very often happens that the only check upon the contents of the car as to weight and quality or grade is that of the most interested person, the owner. It is very

SHIPPING ORDER
BUFFALO, N.Y. Jan. 20 1907
Please load by Jan. 23/07
Grade 3 White
Grain Oats
Quantity 40000
Ex Car No. 4085 Init. D.S.S.A.
Account of Stokes + Co.
R.R. Pro. No. Receipt No. 2856
Routed East Via N.Y.C. + H.R.R.
Signed Wm Thomas
Secy.

Above Order filled as follows:
Car No. 12672 Init. L.V.
Date Loaded June 21/07
Weight 40000
Bushels 1250 00 Car Doors Furnished 4
Scale No. 2
Per James Brown
Weighman

FORM 5.

STRAIGHT TRANSFER
BUFFALO, N.Y. Jan. 18 1907
CAR NO. 4070 INITIAL C.H.+D.
GRAIN Corn ROUTE D.L.+W. R.R.
ACCOUNT Briggs + Co. L.S.+M.S. PRO NO.
TO CAR NO. 6459 INITIAL T.D.S.
DATE LOADED Jan. 21/07 WEIGHT 56000
SCALE NO. 4 DOORS FURNISHED 4
WEIGHMAN Jas. Brown
CONDITION OF CAR ON ARRIVAL AT ELEVATOR.
Seals O.K.
Car leaking at side
REMARKS

FORM 4.





UNLOADED AT
Jan. 20/1907 NO. 1

| 9/c | Car No. | Car Initial | Grain | | Receipt No. | | Cap. | Bin | Corn Lbs | Oats Lbs. | Lbs | Lbs. | Lbs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S+Co. | 4085 | D.S.S.A | 3 | W. Oats | 28 | 56 | 50 | 4 W | | 40000 | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | ✓Check mark implies entry of Receipt in Ledger | | | | | | | | | | | | |

FORM 6.

obvious that before railroad charges can be satisfactorily determined, and before what is known as official weights upon which the grain can be bought and sold in the open market, some impartial weight and inspection is imperative. Again, there are times when the market offers a premium for the higher or fancy grades; when this is the case, it is profitable to all parties that the grain be cleaned, or mixed with sufficient of the higher grades to meet the demand. Any or all of these conditions call for a transfer or elevation of the grain from car to car.

We will now suppose the car of grain has left the original point of shipment and endeavor to follow it in its relation to systematic accounting.

Advices being received from the railroad that the car is ordered to the elevator, at once entry is made in the car record (Form 1), columns in order showing car number, car initial, owner of grain, etc., as indicated in heading. The first entry date is the date car is reported to the elevator by the railroad. On arrival of the car in yard limits, the grain is officially inspected for grade or quality, and the inspection card (Form 2), delivered to the elevator. This inspection grade is now entered in car record in column marked "grade," and under heading of "inspected," date of inspection is entered.

LOADED AT
Jan. 21/07 NO. 2

| Rec. # + 9/c | Car No. | Car Initial | Grain | | Route | Car Doors | Ex Car | Cap. | Corn Lbs. | Oats Lbs | Lbs. | Lbs. | Lbs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B+Co. | 6459 | T.D.S. | 3 | Y. Corn | D.L.W. | 4 | 4070 | 60 | 56000 | | S. Transfer | | |
| 2856 S+Co. | 12672 | L.V. | 3 | W. Oats | N.Y.C. | 4 | 4085 | 50 | | 40000 | | | |
| | | | | Loaded out | | | | | | 40000 | | | |
| | | | | S. Transfer | | | | | 56000 | | | | |

FORM 8.

Upon the arrival of the car in elevator territory, such arrival is reported as being on track, and again in car record date of such arrival is entered. Upon notice of the elevator the car is "placed" for unloading, and work upon the grain now begins. The grain having been placed in the elevator scales, it is weighed, the weight being automatically "punched" upon scale card (Form 3), this card showing whether car is unloaded or loaded, "in" or "out," the car number, initial, etc. Should the grain be "direct transferred" or placed immediately in out-bound car, the "out" card is used, showing first, car into which grain has been loaded, and also "ex" car, or that from which the grain has been taken; should the grain have been held in the elevator for cleaning, mixing, or for storage purposes, on loading out, the "out" card is used, as in case of direct transfer.

In addition to the "scale card" (Form 3), the weighman also receives loading order sheet, for direct transfer car. This sheet is headed "straight transfer" (Form 4), or when the grain is being taken from store, "loading order" (Form 5), is used. These sheets, accompanied by the weight card and inspection card, are daily delivered to the office and permanent entry recorded. The inspection card is now attached to the "in" card, and entry made upon "unloaded" sheet (Form 6), with all data as required by the heading of the various columns. From this sheet the warehouse receipt, is made. This receipt is a negotiable document, showing car number, grade of grain, weight and date of unloading, signed by persons in authority and used as collateral in case of banking, and transferred by purchase and sale, representing the grade and grain stated. Cars "loaded" out or "direct transferred" are entered upon the "out" or "loaded" sheet (Form 7), this sheet also showing data as indicated in heading of columns.

These entries being made, the order slips and weight cards are filed away as original documents, the sheets (Forms 6 and 7) being kept in loose-leaf ledger form for general use and reference. When all entries for the day are complete, footings are made which show the following: On sheet No. 6 the quantity in pounds of grain unloaded, according to class of grain, corn, oats, wheat, etc. On sheet No. 8, the quantity loaded and straight transferred, these footings also showing whether corn, oats, etc., and whether simply loaded from store or if direct transferred.

| Dr. Jany. 20th 1907 | | | | | Dr. Jany. 21st 1907 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Corn | Oats | Cancelled Rect | | | Corn | Oats | Cancelled Rect. | | |
| | 40000<br>40000✓ | | | | 56000<br>56000✓ | | | Corn<br>S. Transfer | 56000 |
| Cr. | | | | | Cr. | | | | Oats |
| Corn | Oats | | | | Corn | Oats | | | |
| | | | | | 56000<br>56000✓ | 40000<br>40000✓ | 2856 | 3 W.O.✓ | 40000 |
| Check marks imply entry in Ledger | | | | | | | | | |

FORM 9.





These footings are now copied in daily journal (Form 9). This journal besides being auxiliary to the grain ledger, also affords an immediate check upon each day's loading operations. These simple transfer entries are easily understood, being the footings under classes. The canceled receipt column will require some explanation.

Before issuing a loading order upon any car, upon which warehouse receipt has already been issued, it is necessary that the receipt be first surrendered. Upon receiving the receipt, the order to load is given. When the grain is loaded and appears upon sheet No. 8, it is included in footing for that date. The use of the canceled receipt column is now obvious. The footing of items in this column must agree with the footing of grain loaded, but for ledger purposes, the number of the receipt and also grade of grain loaded is also entered. The footing agreeing, a check is made upon this part of the day's work.

The next step is that of the grain ledger. To this book all other cards, slips, sheets and journal entries are but tributary. The ledger is the condensed encyclopedia of the elevator's physical operations. It is the ledger

| Grain In Debit — ELEVATOR D — Grain Out Credit | | | | | | | |
|---|---|---|---|---|---|---|---|
| Date | Corn | Oats | | Date | Corn | Oats | |
| Jan 20 | | 40000 | | | | | |
| 21 | 56000 | | | Jan 21 | 56000 | 40000 | |
| Grain Out Debited — WAREHOUSE RECEIPT a/c — W-Rects issued Credited | | | | | | | |
| | 3 Yellow Corn | | 3 White Oats | Date | 3 Yellow Corn Rec. | 3 Yellow Corn Weight | 3 White Oats Rec. | 3 White Oats Weight |
| | | | 1/20✓ 40000 | Jan 20 | | | 2856✓ | 40000 |
| ✓ Check marked implies closed items | | | | | | | | |

FORM 10.

which is to tell what has been handled each day; what is the total amount of grain in store; also what receipts are outstanding, and the class and grade represented. It is not presumed that any one style of ruling and entry is imperative or sufficient to meet all classes or styles of book-keeping, the present paper only attempting to show one system which has been successfully applied in a large and prosperous elevator for over seven years and has been found satisfactory, meeting all demands in this instance.

The ledger ruling is found in Form 10. Each sheet is divided in half, for debit and credit entries. The first pages of the ledger are used for elevator reports, showing under heading of corn, oats, wheat, barley and rye, the quantity of grain taken in, on one half page, the remaining half page showing grain loaded out, monthly footing being made and ruled off, "balance in store" being carried forward. The remaining pages of the ledger are used to show the various classes and grades of grain taken in and loaded out, the entries being made to conform with double entry ideas.

The credit sides (Form 11), showing grain under description receipted, the debit side charging the entry with grain delivered or loaded out. Each entry when closed being marked as on sheet with check mark. At any time balance may be struck and the open entries on the credit side when footed together will be found to agree with the balance on the first page of the ledger.

—*G. Mason.*

## (630A) GROCERY BUSINESS ACCOUNTING (WHOLESALE).

The working force of a wholesale grocery business is as follows:

OFFICE.
- Buyer
- Sales manager
- Credit man
- Book-keeper
- Cashier
- Assistant book-keeper
- Billing clerk
- Stenographer

WAREHOUSE.
- Receiving clerk
- Shipping clerk
- Stock-keeper
- Porters
- Draymen

ROAD.
- Salesmen

We will take up their work as they come in contact with the stock. The books and records used are as follows:

- Sales Books
- Journal and Cash Book
- Ledger
- Receiving Book
- Stock and Price Book
- Letter Heads
- Invoices
- Order Sheets
- Statements
- Checks
- Receipts
- Stock Report
- Cash Vouchers
- Credit Memos.

| Article | Firm | Address | Quantity | Price |
|---|---|---|---|---|
| | | | | |

FORM 1.

Receiving Slip

No. ——— 190

Received from

Via ——— Charges

Number Article

Remarks

FORM 2.

THE BUYER.

The first thing in order after the organization of a mercantile company, and the selection of employes, is the purchasing of the stock. The man who does this well, is kept busy in this one capacity.

He has a card index outfit on his desk arranged alphabetically with cards ruled as Form 1.

After he has received prices from traveling men, or by quotation, he notes the same upon card as illustrated, and files same in the case after the proper index letter. The reverse side of card can be used for memoranda about this particular article, always using a separate card for each article or class of articles. After he makes the purchase, if from a salesman, he re-





| | Article | Brand | Quantity | Rate | List | Packed | Cost | Sell | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

FORM 3.

ceives an exact copy of his purchase with prices, terms, etc. This is placed in an envelope bearing the address of the firm from whom purchased and then filed in a Purchase File, or case. If he buys from quotation, the letter or price list is filed in same manner.

When the invoice for purchase is received it is first sent to the buyer's desk. He takes from his case the copy of purchase, compares same with invoice, noting prices, terms and amounts, attaches copy to the invoice with his O. K. and remarks.

The invoice then is passed to the assistant book-keeper, who verifies the extensions, and places same on file until the goods arrive.

The bill of goods once bought, the next step is to see that same is received in good condition.

THE RECEIVING CLERK.

The receiving clerk makes out an original and duplicate copy, using carbon sheets, of all goods received on Form 2, which is punched to fit post binder.

A separate slip is used for each shipment received. The receiving clerk, not knowing what the invoice calls for, must check the goods correctly, or the error at once is discovered when the receiving slip is compared with the invoice. The privacy of prices is thus kept, and the trouble of mislaid in-

Date Sold ——— The Lockett-Reeves Co ——— Ledger

Terms ——— Bristol Tenn ———

Get out by ——— No. ——— Salesman ——— Date Billed

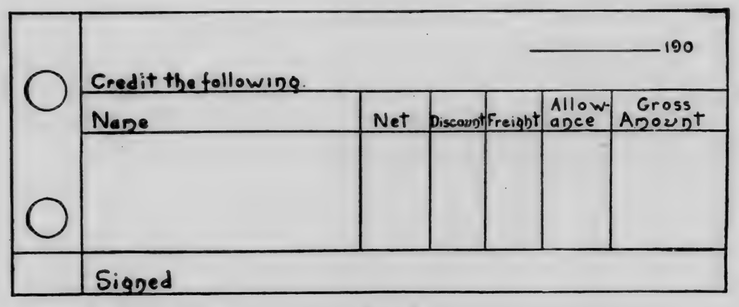
Called back by ——— Sold to ———

Paid on account ——— Postoffice ——— Extensions OK'd by

Ship to ——— When Ship ———

| | Re-Check | Shipper Check | Quantity | Credit OK | Sheet No. | Weight | Price | Salesmen must not use these columns | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | Amount Forward | | | | | | | | |

FORM 4.




FORM 5.

voices is done away with. When goods are returned from customers the same slips are used. The original is sent to the office with the freight bill to be attached to the invoice, or a credit memorandum issued. The copies are filed upon a binder until the end of the month, then it is labeled and filed away. All freights are paid once a week.

STOCK-KEEPER.

After the goods have been checked they are then turned over to the stock-keeper, who with his assistants, arrange and classify them in the warehouse, using the alphabetical arrangement for the smaller articles, which are usually kept in shelves upon the second and third floors. He keeps the buyer posted daily by a stock report sheet, of those goods that are getting low and need to be ordered.

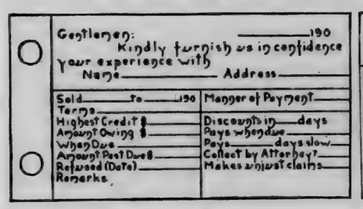
THE SALES MANAGER.

The sales manager takes each invoice and notes the cost and selling prices in a Stock and Price Book arranged as Form 3.

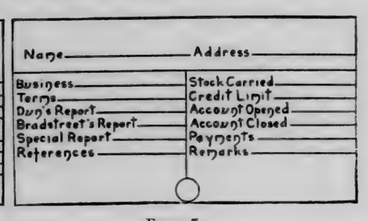
It is his duty to keep the salesman posted as to prices, new goods and prospective customers, to arrange for specialty men and territory. He meets all the city and traveling salesmen every Saturday, for one hour and talks over the situation, and arranges for the next week's trip.

Salesmen are provided with a pad of order sheets like Form 4.

All orders are written upon the sheets, and mailed to the house every day. The total sales of each salesman is made up from the original sheets once a week. Each salesman is given a check for expense money, and same is charged




FORM 6.




FORM 7.





to his account as agent. His daily expenses are noted in a small expense book which is sent in every Saturday.

The amount of this book after being O. K.'d by the sales manager is credited to the Agent account and charged to Traveling Expense account.

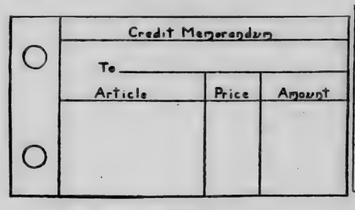
No salesman is allowed to use money he collects for expense purposes, but is provided with Form 5, and this with checks or cash is turned in daily. A separate account is kept as his personal account.

We will now follow the order sheet in its regular order or course through the business. The order sheet having been received by the firm, is first sent to the sales manager, who notes the prices and terms, and O. K.'s same.

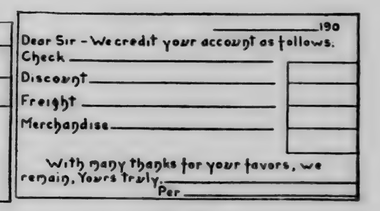
THE CREDIT MAN.

The credit man next receives the order and from either his acquaintance with the purchaser, or from mercantile agency reports, places his O. K. upon it. He usually finds out about customers from other jobbing houses using Form 6. He also has a card index outfit for the credit rating of each customer with cards like Form 7.

The assistant book-keeper next receives the order, numbers it by an order register, then sends it to the shipping department. When the order is returned to the office he checks same on order register to avoid any being lost by shipping department, thus making it impossible to ship goods without the proper charge having been made.




FORM 8.




FORM 9.

In the shipping department all items, when gotten out, are checked on the order sheet by the shipping clerk, then double checked by a recheck clerk or packer. Goods not in stock are marked B. O., meaning Back Order. Those not obtainable are marked out. The shipping clerk then makes the dray ticket, freight bill and bill of lading, using a form printed in triplicate with carbon sheets. The recheck clerk now checks all items on the dray ticket as they are put on the dray, being careful to see that no article is omitted. The signed dray ticket and bill of lading are returned by the driver to the shipping clerk. The dray ticket is filed on a binder, and the bill of lading is attached to corresponding order sheet and sent to the office. City deliveries are receipted for, when delivered, in a receipt book made with perforated sheets. These are torn out and filed like the dray tickets.

The order sheet is now on the billing clerk's desk, who makes the extensions and invoice, noting on same all articles that are to follow on back order, and those that are not in stock and cannot be obtained in the city.

Back orders are made out and filed in a Back Order File. All invoices are made with a typewriter. The invoice is rechecked by the assistant and mailed together with the bill of lading and a letter of thanks, also an order sheet and addressed envelope are inclosed.

THE BOOK-KEEPER.

The book-keeper now receives the order sheet. In this day he has the loose-leaf ledger. So arranging the orders alphabetically, the assistant lists the sales, getting the total for the day. In posting, the book-keeper posts direct from the order to the ledger. After he has posted an order to its account, he then drops the order sheet in the ledger, and so continues until all are posted. He now begins with the first sheet, and with the adding machine lists from the ledger the amount posted, removes the sheet, and so on till all are taken out. He now compares his total with the one made by the assistant, and if it agrees he is sure his postings are correct, and that no omissions have been made.

Merchandise returned is recorded on sheets punched like order sheets, but one-half size, like Form 8, using a different colored paper.

These sheets are posted once a week in the same manner as order sheets, the totals charged to sales account, then filed on sales binder. It is preferable to use this sheet rather than the journal, from the fact there can be more data placed upon them and they can be referred to easily, and properly belong on sales binder as a charge to sales account. These credit memos. are made in duplicate, one copy being mailed to the customer.

The ledger accounts are arranged in two general divisions, viz., general accounts and customers' accounts.

The columnar journal and cash book is arranged with special columns for those divisions. This arrangement will show at any time the amount due us by our customers. Other special columns may be provided if desired.

No account is kept on the ledger with firms from whom we purchase goods.

All invoices are usually discounted in ten days. After they are O. K.'d and verified the book-keeper places them in the Paying File, numbered from 1 to 31, on the day they are to be paid. This file is gone through every day and the bills falling due paid. The date of payment, amount of check, discount and deductions are noted on the invoice, thus making a voucher record. It is then filed in Paid Invoice File, each firm's invoices being bound together in order of payment. The next step in the accounting of the business, is the collection of accounts.

As the remittances are received the assistant book-keeper notes if payments and deductions made are correct. They are held until time for banking, when they are then classified, entered, and the bank deposits made in duplicate, one copy for the bank, and one for the book-keeper's file. A receipt is sent on Form 9 either on a postal or enclosure for each remittance received.—*J. W. Umstattd.*





## (630B) GROSS PROFIT.

"A term generally used to signify the difference between amount of sales and amount expended in placing the articles sold in a salable condition, either by purchase, or purchase and manufacture."

"Gross profit less expense and distribution, leaves net profit."

"Gross profit is the difference between the actual price at which goods have been sold during a period, and the cost of either acquiring or purchasing such goods and getting them in a state or position where they are ready to be sold."

That surplus which remains after all items which enter into cost of production or purchase or expense of placing on sale have been deducted from the amount realized from sales of the articles manufactured, purchased or placed on sale .

## (630C) GUARANTEED BOND.

See Bonds.

## (630D) GUARANTEED STOCK.

See Stock.

## (630E) GUESTS' LEDGER.

See Hotel Accounting.

## (631) HARDWARE BUSINESS ACCOUNTING (WHOLESALE).

PURCHASING DEPARTMENT.

The purchase orders are written in triplicate with the typewriter, using two carbons, the general style of the orders being as per Form 1, the usual plan adopted in distributing the orders, *i. e.*—the original is mailed to the firm addressed, the duplicate is the purchasing agent's record, and the triplicate goes to the receiving clerk.

The stock clerk, as soon as he receives the report that the goods are correct as billed, enters the invoice in the stock book, which may be either on the loose leaf style, as per Form 2, or on the card system.

It will be noted that one of the columns is headed "Selling Price." This should be inserted with a lead pencil, so as to easily note any changes.

SALES DEPARTMENT.

A number of orders are received each day from different salesmen and these are distributed in a sales record, as per Form 3, thus each salesman's orders are together, and the results of the business of each salesman may be easily secured. In addition, a recapitulation is made for the year, as per Form 4.—*E. C. Hopkins.*

## (632) MANIFOLDING.

The facility of the billing typewriter to make several perfect copies at once is being applied in all kinds of office work. It is used in requisition sys-

THE BEST HARDWARE CO.

Pueblo, Colo., Jan. 2, 1907
No. 40

Arcade Mfg Co.
Newark, N J

Gentlemen -
Please enter order for shipment
February 1st 1907 To
The Best Hardware Co
Pueblo Colorado
Via C B & Q. at Chicago
Terms - 30days, 1% 10days

K & F Files
100 Doz 2" Half Round
30 " 8" " "
150 " 6" " "
200 Doz 12" Flat Bb
30 " 10" " "
30 " 16" " "

Invoice in duplicate
Yours Truly
Purchasing Agt

FORM 1.

DUE Feb 12.... .... ....1%
Nov 2.... .... ....Net

ARCADE MFG CO

VOUCHER
NO. .

FORM 2.

ARCADE MFG. CO.

ORDER NO 40 INVOICE 2/2/07
COVERING Files
GOODS RECEIVED OK.
WITH EXCEPTIONS -
Shipping Bill
Bracelets

FORM 3.

FILES

| | No. & Half Round | Set | Weight per Doz |
|---|---|---|---|
| | 2" | 4.50 | |
| | 6" | 2.25 | |
| | 6" | | |

FORM 4.

VOUCHER RECORD
Feb 12, 1907.

| No. | Name | Invoice | Ledger Folio | Amount |
|---|---|---|---|---|
| 100 | Arcade Mfg. Co. | 2207 | | 2 000 00 |
| | | Total | | |

FORM 6.





tems, where duplicate orders are made for record and price files and for the use of receiving and checking clerks. It is used in billing and charging systems, where carbon copies of the bills are condensed on the pages of a loose-leaf sales book. It is used by retail houses in daily entry billing and charging, where the items are entered from day to day, carbon copies of the completed statements being used at the end of the month for posting to the ledger. It is used in making factory tickets when copies are necessary in one form or another for reference and checking.

THE BEST HARDWARE CO.
PUEBLO, COLO.

SALESMAN'S NO. 22

Thad Fields
DATE ORDERED 1-2 07
TERMS 60 Days.
SHIP TO Oelrichs Hdwe Co
AT Oelrichs Colo
WHEN At Once VIA C & W Ry

138.
DATE SHIPPED 1-3-07
LEDGER FOLIO 360.

| ✓ | ✓ | QUANTITY | REGISTER NO. | List | Sell | | Cost |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | Total | | 300 | 00 | |

FORM 7.

SALES

January 1907

| DATE | FIELDS | | HUSTON | | GORDON | | DAYTON | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | Amount | Cost | Amount | Cost | Amount | Cost | Amount | Cost | Sales | Cost |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| 16 | | | | | | | | | | |
| 17 | | | | | | | | | | |
| 18 | | | | | | | | | | |
| 19 | | | | | | | | | | |
| 20 | | | | | | | | | | |
| 21 | | | | | | | | | | |
| 22 | | | | | | | | | | |
| 23 | | | | | | | | | | |
| 24 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 26 | | | | | | | | | | |
| 27 | | | | | | | | | | |
| 28 | | | | | | | | | | |
| 29 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 31 | | | | | | | | | | |
| Total | 4 000 00 | 3 200 00 | | | | | | | | |
| Commission | 200 00 | Ledger Folio 28 | Ledger Folio | | Ledger Folio | | Ledger Folio | | | Ledger Folio |

FORM 9.

To demonstrate this idea more fully we will describe one of its most general applications. This is a system largely used by wholesale hardware houses on account of the vast variety of stock carried, and the infinite detail necessary in filling orders. One single writing of the order is all that is necessary from its receipt to the posting of the ledger. The writing of the

**SALES** January 2. 1907

| | FIELDS | | | HUSTON | | | GORDON | | | DAYTON | | | FLEISCH | | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No | Amount | Cost | No | Amount | Cost | No | Amount | Cost | No | Amount | Cost | No | Amount | Cost | Sales | Cost |
| | 22 | 38[illegible] | [illegible] | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | |

FORM 8.

**SALES FOR YEAR 1907**

| DATE | FIELDS | | | HUSTON | | | GORDON | | | TOTAL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1907 | Sales | Cost | Com. | Sales | Cost | Com. | Sales | Cost | Com. | Sales | Cost | Com. |
| Jan | 4 [illegible] | 3 [illegible] | 200 00 | | | | | | | | | |
| Feb. | | | | | | | | | | | | |
| Mar. | | | | | | | | | | | | |
| April | | | | | | | | | | | | |
| May | | | | | | | | | | | | |
| June | | | | | | | | | | | | |
| July | | | | | | | | | | | | |
| Aug. | | | | | | | | | | | | |
| Sept | | | | | | | | | | | | |
| Oct. | | | | | | | | | | | | |
| Nov. | | | | | | | | | | | | |
| Dec. | | | | | | | | | | | | |
| Total | | | | | | | | | | | | |

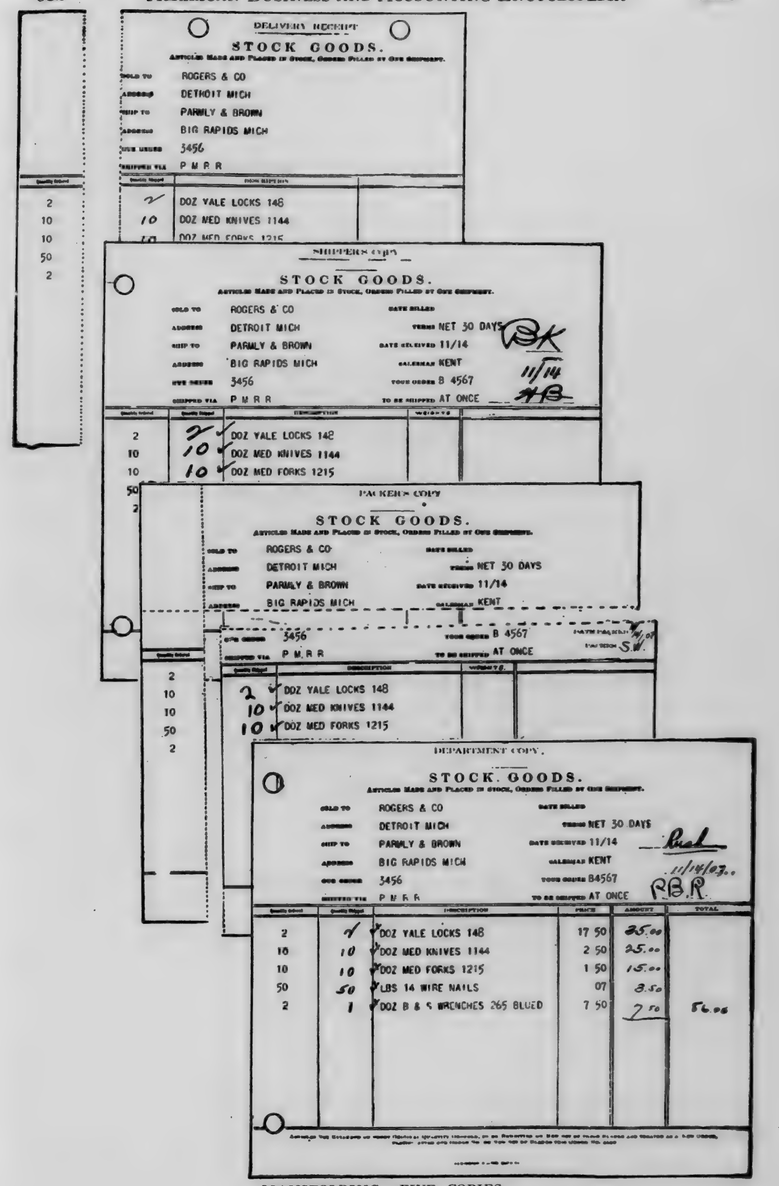
SUMMARY
TOTAL GROSS SALES $----------
Less Goods Returned
Amount shown by Credit Memo Book $----------
TOTAL NET SALES $----------
TOTAL NET COST $----------
Less cost of returned goods $----------
$----------
Add 15% for Expenses etc. $----------
TOTAL ACTUAL COST $----------
GAIN $----------

FORM 10.

invoice, the charge slip, acknowledgments of the order to the customer and salesman, salesman's commission record, stock clerk's order, packer's copy, shipper's copy and if necessary even the bill of lading or delivery receipt, or both, is all accomplished by one operation. This is called the unit system because each charge or sales book entry is on a separate sheet.—*H. Hammitt.*








MANIFOLDING—FIVE COPIES.

## (633) HOSPITAL ACCOUNTING RECORDS.

The principal records of a hospital are those which relate to its peculiar requirements. The purchase department is conducted in the ordinary manner with triplicate order blanks, etc., and it is not necessary to specially refer to it.

The voucher record has a number of special headings, but otherwise is similar to the ordinary voucher record. Form 1 shows that a proper provision

No._____ THE GRACE HOSPITAL- Purchase Order — Original Duplicate and Triplicate

To _____ Date _____

Please supply the following articles:

| Quantity | | Description | Price | Terms | Credit | Amount |
|---|---|---|---|---|---|---|
| | | | | | | |

Our Order No. must be quoted on the Bill

_____ Superintendent

FORM 1.

THE GRACE HOSPITAL

| Voucher No. | In Favor of | Description of Voucher | Amount | SUPPLIES A Provisions | SUPPLIES B Pharmacy | SUPPLIES C Soap and Starch | D Pharmacy | E Provisions | F Fuel and Light |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| G Ambulance | H Hospital Nursing | I Housekeeping | J Laundry | K Stationery | L Training School | M Laboratory | N Current Repairs | | | L F. | Miscel. | Unpaid Vouchers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

FORM 2.





This Check in payment of the following charges. If not correct, return without altering.

Total

Net Amount

Voucher No._____ No.

The Grace Hospital

Detroit, Mich. _____ 190__

Pay to The Order of _____

_____ Dollars $_____

TO THE _____ BANK

DETROIT, MICHIGAN

THE GRACE HOSPITAL

By _____ Treasurer

Your Endorsement is Sufficient Receipt

Countersigned By _____

Secretary Trustees

FORM 3.

THE GRACE HOSPITAL

PATIENT'S MENU

Meal _____ Date _____ 190__

| | | | | | | | | | | | |

| BREAKFAST | Hospital of 25 Beds | Hospital of 60 Beds | Hospital of 100 Beds |
|---|---|---|---|
| Beefsteak, Round | 5 lbs. | 8 lbs. | 15 lbs. |
| " Porterhouse | 8 lbs. | 10 lbs. | 20 lbs. |
| Eggs | 2 doz. | 4 ¾ doz. | 8 doz. |
| Cereal, Cooked fresh | 5 qts. | 10 qts. | 20 qts. |
| " Prepared | 1 pkg. | 2 pkgs. | 4 pkgs. |
| Bread (for toast, 1 lb. loaves) | 4 loaves | 8 loaves | 2 doz. 1. |
| Bread (plain) in add. | 2 loaves | 4 loaves | 1 doz. 1. |
| Butter | 1½ lbs. | 2¾ lbs. | 5 lbs. |
| Cream (for private p'ts) | 1½ pts. | 3 pts. | 2 qts. |
| Milk (allowing ½ pt. each) | 6 qts. | 12 qts. | 24 qts. |
| Coffee (dry) | 3 oz. 4 cups | 5 oz. 7 cups | 2 lbs. |
| Sugar | 3 lbs. | 5 lbs. | 15 lbs. |
| Fruit fresh (oranges, etc.) | 1 doz. | 2¾ doz. | 5 doz. |
| Fruit stewed | 2 qts. | 4 qts. | 7 to 9 qts. |
| Cocoa (allow one teaspoon for each patient and one additional cup each to quantity of milk) | - - - - - | - - - - - | - - - - - |
| DINNER | | | |
| Soup | 5 qts. | 10 qts. | 20 qts. |
| Croutons or Crackers | 2 lbs. | 5 lbs. | 10 lbs. |
| Roast, rib | 8 lbs. | 12 lbs. | 20 lbs. |
| Lamb, leg | 10 to 12 lbs. | 15 to 18 lbs. | 25 to 30 lbs. |
| Chops | 2 doz. | 4 doz. | 7½ doz. |
| Potatoes | 1 pk. | ½ bush. | ½ bush. |
| Celery | 1 doz. stalks | 1 large bun. | 2 large bun. |
| Beets | ½ pk. | 1 pk. | ½ bush. |
| Bread, bakers 1 lb loaves | 3 loaves | 6 loaves | 1 doz. loaves |
| Tea | ¾ lb. | ¾ lb. | 1 lb. |
| Sugar | 2 lbs. | 3 lbs. | 5 lbs. |
| Milk | 3 qts. | 5 qts. | 15 qts. |
| Dessert, Rice Pudding | 4 to 6 qts. | 6 to 8 qts. | 18 to 20 qts. |
| Ice Cream, in bulk | 4 to 6 qts. | 8 to 10 qts | 4 to 6 gal. |
| Ice Cream, brick | 2 to 3 hr'ks | 4 to 8 hr'ks | 10 bricks |
| SUPPER | | | |
| Scalloped Potatoes (potatoes, milk, b'ter) | 2 qts. sliced | 6 qts. | 10 to 12 qts. |
| Bread | 6 loaves | 12 loaves | 2 doz. |
| Butter | 1½ lbs. | 3 lbs. | 6 lbs. |
| Fruit stewed | 2 qts. | 5 qts. | 10 to 12 qts. |
| Tea | ¾ lb. | ¾ lb. | 1 lb. |
| Milk | ¾ qt. | 6 to 7 qts. | 10 to 12 qts. |
| Eggs, special diets | 1 doz. | 2 doz. | 4 doz. |
| Cream | 1 pt. | 1 qt. | 1 gal. |
| Oysters, raw | 2 to 3 qts. | 3 to 5 qts. | 6 to 8 qts. |

DIAGRAM 6.

FORM 6.

M.
Dr.
ADMITTED
DISCHARGED
HOSPITAL DAYS
C. R.

| DATE | | BOARD | LAUNDRY | SUNDRY | TOTAL | DATE | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

FORM 7.

THE GRACE HOSPITAL

Pay Roll for Month of _____ 190_

| Name | Service | Date From | Date To | Rate per Mo. | Amount | Advanced | Balance | Received By |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

FORM 8A.

The proper record of provisions and supplies received and their distribution is of great importance to the hospital management, as upon this depends the accuracy of those statistics compiled in regard to the average maintenance expense per patient. See Forms 3 and 4.





| Provisions | Pharmacy | Ambulance | Hospital Nursing | House-Keeping | Laundry | Training School | Laboratory | Description | Sundries |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

FORM 8B.

| | Admission No. | Patient | Address | Date Admitted | Hour | Manner | Recommended by |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |

FORM 9-1.

| | Admitting Diagnosis | Examiner | Remarks | | Religion | Birth Place | Birth Date | Complexion | Color | Years in City | Years in County | Years in State | Civil Condition |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 | | | | | | | | | |
| | | | | 2 | | | | | | | | | |
| | | | | 3 | | | | | | | | | |
| | | | | 4 | | | | | | | | | |
| | | | | 5 | | | | | | | | | |
| | | | | 6 | | | | | | | | | |
| | | | | 7 | | | | | | | | | |

FORM 9-2.

There is a standard table of approximate quantity of food required for hospitals of different sizes.

The pay roll is provided with distribution columns, so that every proper statistic may be easily obtained.

We show a patient's register at date of entrance and register of treatment in the hospital. The comparative monthly record should also be found interesting to those connected with this kind of institution. (Forms 5 and 6.)

We also illustrate special form of patient's ledger on the card system. (Form 7.)

| Occupation | Father's Name | Nationality | Mother's Name | Employer | | Employer's Address | Relative or Friend | How Related | Address | Phone No. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | | | | | |
| | | | | | 2 | | | | | |
| | | | | | 3 | | | | | |
| | | | | | 4 | | | | | |
| | | | | | 5 | | | | | |
| | | | | | 6 | | | | | |
| | | | | | 7 | | | | | |

FORM 9-3.

| Assigned To | | | Pay or Free | Discharge Diagnosis | Receipt No. | Discharged | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ward | Room | Division | | | | Hour | Date | | |
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |

FORM 9-4.

### (634) HORIZONTAL ADDITION.

Cross addition. The addition of footings across a page necessary in columnar books of account or statistical records in order to prove the totals.

### (635) HORSES—DEPRECIATION OF.

Experience shows that no specific rule can be applied, but that it is best to have property of this kind periodically re-valued, the life of a horse in some businesses and under some conditions being much longer than in others.

### (636) HOTEL ACCOUNTING.

A hotel business proper includes the following departments:

Café
Billiard Room
Bar
Cigar Stand
News Stand
Accommodations.

A separate account should be kept with each of these departments in order to show the cost of running them and the income derived from each





department. Cash Books, Purchase and other records should, therefore, be provided with special columns for each department in connection with receipts and expenditures, and each department should bear its proper proportion of general expense of superintendent's management, general office work, etc.

In large hotels all provisions and supplies are received in a store room and only delivered on requisition, being charged to the different departments. This, we suppose, is true with everything with the exception of the news stand. The billiard room is usually served from the bar, so that the bar receives credit for all liquors there consumed.

A proper monthly comparative statement should not only exhibit percentages of profit or loss, increase or decrease of business, but also the average cost of feeding each guest, this being a check on the steward.

Where a hotel owns a farm or dairy, or other source of supplies, these departments should be considered, so far as the hotel accounts are concerned, as entirely separate and independent organizations, as this is the only method of preventing confusion.

We illustrate forms of hotel guest ledger, house-keeper's daily report, and financial statement. These are all conveniently arranged and should be found practical in use.

---

### (637) HOTEL CARD RECORDS.

One of the most difficult problems which confronts the managers of hotels is how to secure themselves against accidental or fraudulent loss, particularly in connection with charging to their guests the various items which constitute their bills. A number of methods are employed in this direction of which we believe the following to be one of the best.

The pivotal point around which the following plan revolves is a card, as illustrated, and which is handed to the guest at the time of registering his name upon entering the hotel.

It serves as:

1. His credential for entering the dining-room (where the custom of the hotel so requires).

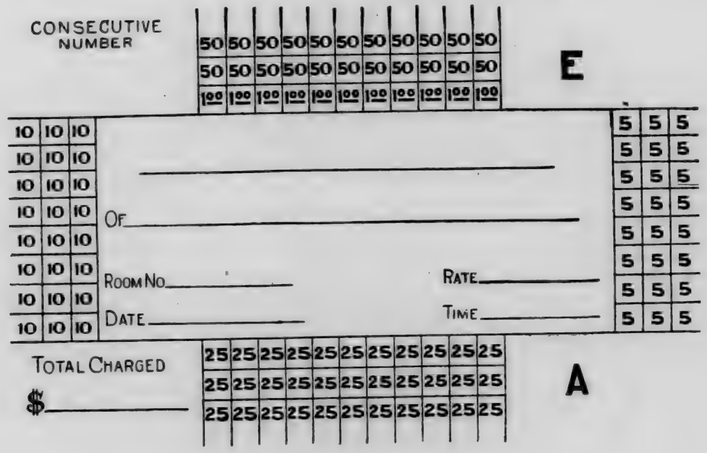
NAME_____ ROOM NO_____

| | |
|---|---|
| ROOMS_____ | |
| MEALS_____ | |
| NEWS STAND_____ | |
| EXTRAS_____ | |
| TOTAL | |

REMARKS

KIPWELL'S
3413 W. 23 ST. NEW YORK

| Title of Manuscript | Sent | Returned | Published |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |




2. The continuous record of all charges for meals and extras booked against him during the life of the card.

3. As a day book record and ledger account with the guest, kept up at the minimum cost of clerical labor.

4. As the basis of a counter-check between the book-keeper and cashiers.

5. As a condensed and analyzed record for writing up cash book by book-keeper.

6. After being filed away alphabetically, as a perpetual reference memorandum with regard to each individual guest.

A guest having recorded his name on the register, the clerk takes up one of the cards and enters the particulars which the spaces in the center call for, giving it the same "consecutive number" as the one which identifies the line upon which his name is written in the guest book.

Presuming for the time being that the hotel is exclusively "European," the guest will produce his card upon leaving the dining-room, together with the waiter's slip, representing the charge against him. The slip will be numbered with the number of the card.

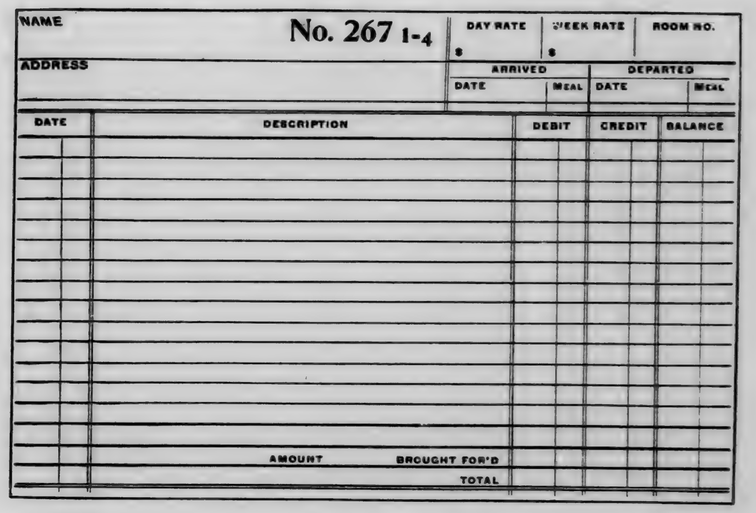
The café cashier will punch the card with the amount charged on the slip, retaining the latter.

These waiter's slips will be sorted into numerical order by the cashier (café) as the day proceeds, and afterwards sorted in with all that are not obsolete—same becoming obsolete when bills representing them have been paid.

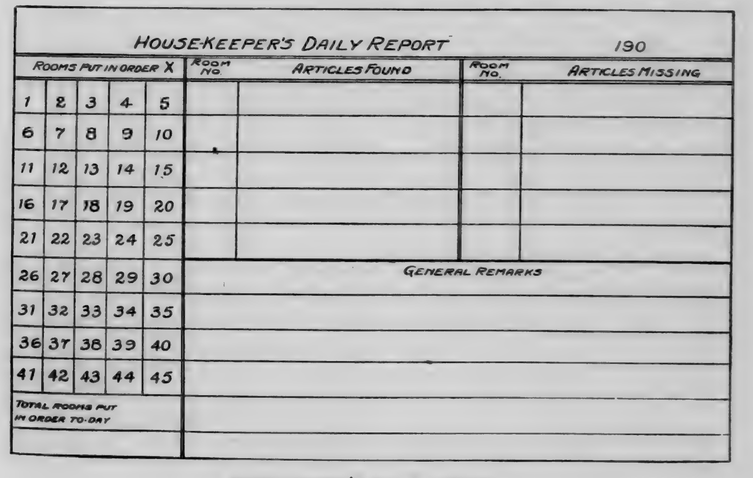
If the news stand or any other department in the building is under the direct control of the hotel, or has an arrangement with them to that effect, those in charge of same may be furnished with punches of a distinctive character, and charge purchases against the guests. These items will be recorded








GUEST LEDGER.




HOUSEKEEPER'S DAILY REPORT.

| STATEMENT FOR 190 | CASH GENERAL DR | CASH GENERAL CR | ACCOUNTS RECEIVABLE DR | ACCOUNTS RECEIVABLE CR. | ACCOUNTS PAYABLE DR | ACCOUNTS PAYABLE CR |
|---|---|---|---|---|---|---|
| BALANCE LAST STATEMENT | | | | | | |
| CASH REC'D MEALS | | | | | | |
| CIGARS, ETC. | | | | | | |
| ACCTS. RECEIVABLE | | | | | | |
| OTHER SOURCES | | | | | | |
| | | | | | | |
| CASH PAID SUPPLIES, ETC FOR CASH | | | | | | |
| ACCTS PAYABLE | | | | | | |
| PAY ROLL | | | | | | |
| OTHER PAYMENTS | | | | | | |
| | | | | | | |
| ACCTS REC'D. CHARGED GUESTS & OTHERS | | | | | | |
| DISCTS. ALLOWED DO DO | | | | | | |
| | | | | | | |
| ACCTS PAY PURCHASES CREDITED | | | | | | |
| DISCOUNTS TAKEN BY US | | | | | | |
| PURCHASES RETURNED | | | | | | |
| | | | | | | |
| | | | | | | |
| FOOTINGS | | | | | | |
| BALANCE FOR NEXT STATEMENT | | | | | | |

FINANCIAL STATEMENT.

in their cash register, and tickets bearing the numbers of the guest's cards will be made out, and turned in to the book-keeper to be checked against the same as described below. When the guest wishes to make a settlement he produces his card. The cashier makes a memorandum on the face of it of the amount charged for room, foots up the total of items punched and records the gross figure in the space provided at the left hand bottom corner of the card. He then (or at the close of the day) hands the card to the book-keeper. The book-keeper makes an independent calculation by departments of the items punched, for his analyzed recapitulation on the reverse side as shown in Diagram 2. His total must agree with total charged on the face. From this recapitulation he enters up his cash book, which is provided with columns to correspond.

It will be observed that this method of charging limits the credit of the guests (apart from room charges) to an amount equal to the capacity of the card. This is liable occasionally to be a consideration of no small amount. The proprietor may frequently find himself in a difficult or embarassing position when he notices that the charges running up against a certain customer are in excess of what he believes to be a reasonable limit in that particular case. At the same time to approach the guest on the matter is an alternative that he would be pleased to avoid. Under this system, however, the difficulty is met more than half way.

It will be noticed that spaces are provided on the reverse side of the card both for the number of the room and for remarks, as well as for a repetition





of the customer's name. It is suggested that so soon as the book-keeper has finished with them the cards be filed away alphabetically in a card index file, which should be kept at the elbow of the counter clerk. Immediately a guest registers, or, if possible, as he approaches, the clerk will turn to this file and inform himself, not only as to the room which he has previously occupied, but as to any personal tastes and prejudices which the guest may have displayed and which have been noted down on a previous occasion.

In this way there will be gradually collected together and systematically tabulated an amount of information which will be of great practical value.

### (638) HYPOTHECATED SECURITIES.

Assets pledged or mortgaged as security for money advanced. It is quite usual to carry the amounts received on account of such loans in a Collateral Account, the amount of such Collateral Account being deducted on the balance sheet from the values of the assets deposited as collateral. Mortgages are usually treated as liabilities.

### (639) IMPRESSION BOOK.

A book in which bills or letters are copied. It is a common practice to copy bills in an impression book and post thence to the customer's account in the ledger. Some manufacturing stationers make a specialty of manufacturing impression books with extra columns ruled at the right-hand side of each page for distributing the sales into different departments.

This device is being rapidly supplanted by the use of carbon copies.

### (640) IMPREST SYSTEM OF PETTY CASH.

See Petty Cash.

### (641) INCOME.

The gain which proceeds from property, labor, or business. It is applied particularly to individuals. The income of the state or government is usually called revenue. The word is sometimes considered synonymous with profits, the gain as between receipts and payments.

### (642) INCORPORATION.

See Corporations.

### (643) INDEX.

A book arranged to furnish ready reference to another book.

#### BOUND INDEX.

A bound volume which is usually provided with vowelized tabs, either across the top of the pages or down the outside edge.

CARD INDEX.

Numerous examples have been given under the heading of "Card System." These indexes, together with those on the loose leaf principle, are superior to the bound indexes because they can be cross-indexed with facility if anything new arises, and a page which has been completely filled may be removed and a new page substituted.

Labor-saving devices are not used as often as might be expected, so that in a majority of cases the procedure in hunting up the order would be something like the following. The customer writes: "Make me one ledger same as last." The order clerk first goes to the ledger index and looks up the page of the account. He then refers to the ledger and finds the page of the sales book, which simply shows that the ledger of so many pages was furnished, but gives no other particulars. From the sales book he turns to the order which gives the factory number, under which he can find a duplicate sheet of the ledger for which the order has been received. In a card index a column would probably have been provided on the card for the factory number, so that reference would have been direct and instantaneous.

## (644) INSOLVENCY.

Inability to pay one's debts.

## (645) INSTALLMENT.

A portion of a debt, or sum of money, payable at specified recurring nitervals.

### (646) INSTALLMENT BOOK.

See Stock.

### (647) INSTALLMENT COLLECTIONS.

A system for monthly collections should be simple, labor-saving, and easily worked. An outline is given here of a system which meets these requirements.

A four drawer cabinet for cards, two sets of alphabetical guide cards, two sets of date cards, are required, besides the ruled and printed card forms shown here.

Suppose John Smith buys a $60 bicycle on the $10 monthly installment plan. From his signed contract the book-keeper can make out an index card, giving number of account, name and address and date when installment falls due.

This card goes into the first drawer of the cabinet under "S."

From the contract is also made out Smith's instalment card which serves as a ledger account.

This is filed in the second drawer under the date card 15 together with other accounts due on the same date. Smith's card above shows that he has





paid $10 on account and that this payment has been entered on page 187 of your cash book.

A duplicate of this instalment card may be given to the customer so that he may keep tab on his payments. On the back of the duplicate card may be printed, "This card shows the date on which your monthly instalment should reach our office. Kindly give the matter prompt attention."

Suppose Smith has been ill for a few days and writes you that he wishes a week longer to pay his June instalment. If you grant the extension, note on the index card, and move card forward under 22.

At the end of the month, or at different periods, say 1st and 15th of each month, all cards showing instalments overdue should be moved to the third drawer "Overdue."

Note the fact on the index card. Deal with these from time to time as thought best, changing position to different date if arrangement to pay is made.

The fourth drawer is "Collections." Here file alphabetically all accounts which have passed through the overdue drawer into the hands of your solicitors or collectors.

This system eliminates the use of an installment ledger, and provides a simple way of keeping track of any special arrangement, regarding payment. It arranges accounts conveniently for the purpose of notification, shows exactly what payments should be made on any certain day, and can be modified, altered or enlarged to suit the business.—*D. G. French.*

## (648) INSTALLMENT BUSINESS ACCOUNTING.

PIANOS.

The fact that some business men do not first endeavor to figure out how much capital it will require to do a certain amount of business is responsible for a number of failures. It does not appear to be understood in the installment business that although the assets are in existence, they cannot be realized because the installments are not due, and in time of emergency loans cannot be easily obtained on installment accounts.

In connection with this condition a problem was recently propounded and solved in great and interesting detail.

Jones is a piano man with several thousand dollars saved; Jones is the man with the "experience," Smith is the man with the "money." Now Jones and Smith decide to go into the retail piano business, and Jones invests his money in the establishment of the store, in a stock of pianos, etc., etc. They figure to do a certain amount of business on certain terms and under certain conditions of expense, say as below:

In Jan. they sell 5 pianos and replace with new.
In Feb. they sell 7 pianos and replace with new.
In Mar. they sell 8 pianos and replace with new.
In Apr. they sell 12 pianos and replace with new.
In May they sell 11 pianos and replace with new.
In June they sell 8 pianos and replace with new.

In July they sell 4 pianos and replace with new.
In Aug. they sell 6 pianos and replace with new.
In Sept. they sell 8 pianos and replace with new.
In Oct. they sell 20 pianos and replace with new.
In Nov. they sell 18 pianos and replace with new.
In Dec. they sell 19 pianos and replace with new.

120

They figure their expenses:

| | |
|---|---|
| January | $ 800 |
| February | 880 |
| March | 920 |
| April | 1,000 |
| May | 1,000 |
| June | 920 |
| July | 760 |
| August | 840 |
| September | 920 |
| October | 1,400 |
| November | 1,320 |
| December | 1,240 |

Pianos cost $200 each on an average, and are bought on six months' time.

Pianos sell for $320 on an average, say each fifth piano for cash, the others for $15 down and $10 a month.

Question 1. How much money should Smith put in?

Question 2. If he put in $10,000, other conditions being the same, then what should be the terms of the time sales?

Question 3. If he puts in $20,000 then what terms of time sales can they afford?

QUESTION NO. 1.

How much money should Smith put in?

ANSWER.

$21,060—the first year $8,760, the second year $11,640, the third year $660.

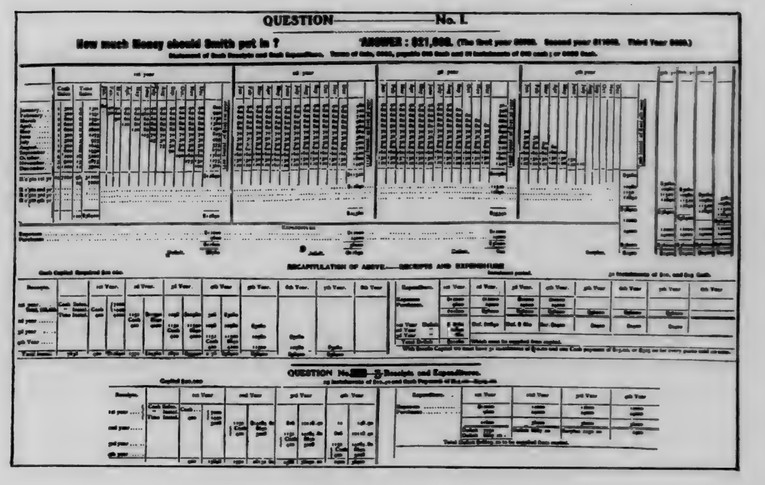
EXPOSITION.

The capital necessary to conduct a business must be at least that amount which will meet the deficit between receipts and expenditures, so our first step is to ascertain the receipts and expenditures for the installment period of this business (which is four years). The inclosed statement No. 1 shows the monthly deficit between receipts and expenditure and the total deficit to be $21,060, or the cash that must be supplied.

If pianos sell for $320 on an average, every fifth one for cash, while the others are sold for $15 down and $10 a month, the selling price must be $300 for cash and $325 on time (payable $15 cash and 31 installments of $10—$325). Jones furnishes the capital for stock, so that Smith has only the purchased pianos to pay for at the end of six months.






QUESTION No. 1.

How much Money should Smith put in?

QUESTION No. 2.

If Smith puts in $10,000, other conditions being the same, then what should be the terms of time sales?

ANSWER.

$15 cash and 20 installments of $15.50 each—$325. We have found by statement No. 1 that the deficit is

| | |
|---|---|
| $ 8,760 | first year |
| 11,640 | second year |
| $20,400 | |
| $ 660 | third year |
| $21,060 | |

Now it is quite evident that with $10,000 capital we cannot meet the deficit of the first two years, $20,400, but will require $10,400 more capital, which we must secure by increasing the installments of these two years. The installments received the first two years, as per statement No. 1, are 420 and 1,572—1,992; by increasing these installments $5.22 each we receive the necessary amount.

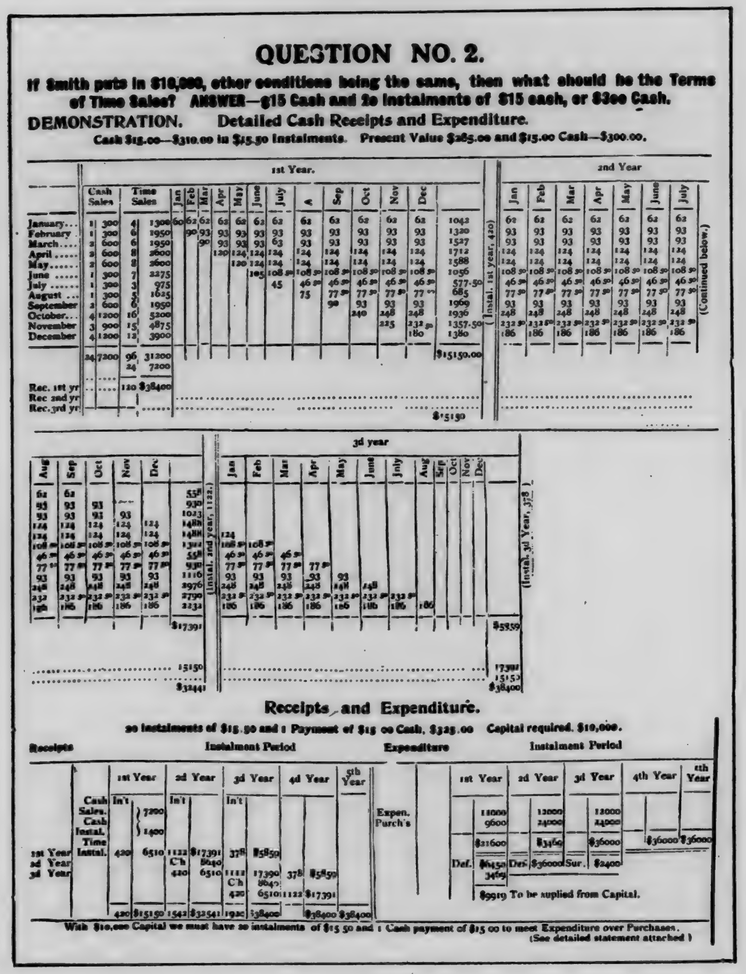
This would make the installments $15.22, but the nearest amount that would divide equally into $310 is $15.50, so we must make the installments 20 of $15.50 each; which with one cash payment of $15 equals $325. See statement No. 2.

## QUESTION NO. 2.

**If Smith puts in $10,000, other conditions being the same, then what should be the Terms of Time Sales? ANSWER—$15 Cash and 20 instalments of $15 each, or $300 Cash.**

**DEMONSTRATION. Detailed Cash Receipts and Expenditure.**

**Cash $15.00—$310.00 in $15.50 Instalments. Present Value $285.00 and $15.00 Cash—$300.00.**




QUESTION NO. 3.

If Smith puts in $20,000, then what terms of time sales can they afford?

ANSWER.

$15 cash and 25 installments of $12.40 each equals $325.
We have found by statement No. 1 that the deficit is





$ 8,760.....first year
11,640.....second year
660.....third year

$21,060

Now, it is quite evident that with $20,000 capital we cannot meet the deficit of the first three years, namely, $21,060, but will require $1,060 more capital, which we must secure by increasing the installments of these years. Installments received the first three years, as per statement No. 1, are 420, 1,572 and 2,670—4,662; by increasing these installments 22 cents each we receive the necessary amount.

This would mean installments of $10.22, but the nearest amount that will divide equally into $310 is $12.40, so we must make the installments 25 of $12.40 each, which with one cash payment of $15 equals $325. See statement No. 3.

We base answer on the supposition that all installments are paid when due; if not, of course more capital would be required. We also presume no dividends are paid until the end of the installment period.

If pianos purchased had to be paid for in cash, $14,400 more capital would be necessary the first year.—*W. P. Despard.*

### (649) INSTALLMENT NOTES.

In some installment furniture businesses it is supposed to be necessary to have the customer sign a separate note for each installment. This not only involves a considerable amount of work, but is entirely unnecessary. In most cases a regular form note may be used by a slight change of the wording, making it read, "Equal monthly installments of $..... payments to be made on the first of each month hereafter until the entire sum has been paid." If payments are not made in equal installments, the wording may be changed as follows: "Payments to be made on the dates and in the sums specified on the back hereof."

Another good plan is the coupon note, there being attached to the original note as many coupons as there are payments. The coupons are filled out to show dates and amounts of payments and torn off and delivered to the customer as receipts. These coupons may be made in duplicate if desired, although this seems scarcely necessary.

### (652) INSTALLMENT PROFITS.

It should always be borne in mind that the cost of collection in installment accounts is greater than the collection of accounts in ordinary business, as the payments are spread over a longer period. The risk of loss is also considerably larger. It is therefore desirable in making up financial statements to take into consideration probable losses, and also depreciation on the goods sold, if they are retaken because of default of payment. The proportion of the succeeding years expense of collection should also be considered, so that the new year's business will not be burdened with the expense of collecting a

(650) INSTALLMENT PAYMENT RECORD.

Folio No. _____ Contract _____

Name _____ Monthly or Weekly Paym't _____

Address _____ Due When _____

| JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |

Date _____

Signature _____

(651) INSTALLMENT INSTRUMENT STORES RECORD.

| DATE RECEIVED | NAME OF INSTRUMENT | MAKE | STYLE | NUMBER | COST |
|---|---|---|---|---|---|
| | | | | | |

DISPOSITION

| DATE | LEASE INDEX | NAME OF PURCHASER OR PARTY WITH WHOM LEFT | ADDRESS | AMOUNT OF SALE | ALLOWED FOR OLD INSTR'MT | SALESMAN |
|---|---|---|---|---|---|---|
| | | | | | | |
| RE POS S'D | | DATE | | | AM'T | |
| | | | | | | |
| RE POS S'D | | DATE | | | AM'T | |
| | | | | | | |
| RE POS S'D | | DATE | | | AM'T | |
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| RE POS S'D | | DATE | | | AM'T | |
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| RE POS S'D | | DATE | | | AM'T | |
| | | | | | | |

## (650) INSTALLMENT PAYMENT RECORD.

Folio No. _____ Contract _____

Name _____ Monthly or Weekly Paym't _____

Address _____ Due When _____

| JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| | | | | | | | | | | | | |

Date _____

Signature _____

## (651) INSTALLMENT INSTRUMENT STORES RECORD.

| DATE RECEIVED | NAME OF INSTRUMENT | MAKE | STYLE | NUMBER | COST |
|---|---|---|---|---|---|
| | | | | | |

DISPOSITION

| DATE | LEASE INDEX | NAME OF PURCHASER OR PARTY WITH WHOM LEFT | ADDRESS | AMOUNT OF SALE | ALLOWED FOR OLD INSTR'M'T | SALESMAN |
|---|---|---|---|---|---|---|
| | | | | | | |
| REPOS'D | | DATE | | | AM'T | |
| | | | | | | |
| REPOS'D | | DATE | | | AM'T | |
| | | | | | | |
| REPOS'D | | DATE | | | AM'T | |
| | | | | | | |
| REPOS'D | | DATE | | | AM'T | |
| | | | | | | |
| REPOS'D | | DATE | | | AM'T | |
| | | | | | | |

FOLDOUT TOO LARGE
TO BE FILMED AS A
WHOLE, FILMED IN
SECTIONS ONLY

COMBINED CASH JOURNAL
AND GENERAL LEDGER
LIFE INSURANCE CO.

# RECEIPTS

| DATE | NAMES | PARTICULARS | Folio | PREMIUMS | | Real Estate | Gen'l Expense | INTEREST | | | Mortgages | Titles Ledger | Miscellaneous | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Renewals | 1st Year | | | Renewals | 1st Year | Loans to Policy Holders | | | | |
| | | | | | | | | | | | | | | |
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# DISBURSEMENTS

| Titles Ledger | Miscellaneous | Cash | DATE | NAMES | PARTICULARS | Folio | Div'ds to Policy Holders | Agents' Commission | Medical Exam. | Postage and Exchange | General Expense | Memorandum | Agents' Salaries | Traveling Expenses | Death Claims |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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# DISBURSEMENTS

| NAMES | PARTICULARS | Folio | Div'ds to Policy Holders | Agents' Commission | Medical Exam. | Postage and Exchange | General Expense | Memorandum | Agents' Salaries | Traveling Expenses | Death Claims | Surrender Values | Matured Insurance | Ledger Titles | Miscellaneous | Mortgages | BILLS RECEIVABLE | | | Cash |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | Loans to Policy Holders | 1st Year | Renewals | |
| | | | | | | | | | | | | | | | | | | | | |
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large number of accounts, the profits of which inflate the gross profit of the preceding year.

A good plan is used by some installment concerns and consists of making a list of outstanding accounts, showing amount of monthly payment, amount paid and amount overdue, balance due and months to run. An extra column is provided in which after careful examination the amount considered at all doubtful is entered, as also the estimated average of collection expense. Charge this amount to an Installment Loss account and credit Contingent account. This Contingent account, therefore, acts as a reserve. This has been found satisfactory because if an excessive amount has been debited to the Installment Loss account, it can be easily adjusted.

In the case of a single proprietor, of course, this method would not be so desirable, but in the case of a corporation where the shareholders expect to receive dividends from the amount of surplus shown in the Balance Sheet it is a very desirable procedure.

## (653) INSTITUTION RECORDS.

See Hospital.

## (654) INSURANCE.

A contract by which one party for an agreed consideration undertakes to compensate another for a certain specified loss or partial loss.

### POINTERS FOR BUSINESS MEN AS TO FIRE INSURANCE.

The insured, in making application for insurance, is bound to state all that he knows himself, and all that it imports the underwriter to know. Rea-

JAN APR JUL OCT

INSURED

ADDRESS

AMOUNT
$

BORN | AGE | RACE

PLAN | ACCUM. PERIOD | FORM

OCCUPATION

BENEFICIARY

DATE OF APP. | DATE OF MED. EXAM | INSURANCE BEGINS | APPROX. PREM.

| PREMIUM | | 1ST YEAR COM | | PREMIUM | | |
|---|---|---|---|---|---|---|
| DUE | DATE PAID | GEN AGT. DATE PAID | SUB AGT. DATE PAID | | DATE PAID | EXAM |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| REMARKS | LAPSED | | | REVIVED | | | LOAN |
|---|---|---|---|---|---|---|---|
| | MO. | DAY | YR. | MO. | DAY | YR. | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | SURRENDERED FOR |
| | | | | | | | MATURED |
| | | | | | | | DEATH CLAIM |
| | | | | | | | |

sonable ground of apprehension of loss and actual facts known to the insured denoting impending dangers, must be stated to the insurance company, as otherwise the policy is void.

A fire insurance policy is not assignable, and if assigned without the consent of the company it is void.

The conditional insurance clause provides that only the market or cash value of the property at the time of the fire can be recovered from the insurance company.

The clause entitled "other insurance" provides that the policy shall be void in case the policy-holder now has, or shall hereafter make or procure any other contract of insurance on the property covered in whole or in part by the policy. This clause may be waived by agreement with the insurance company.

The standard form of policy contains a clause which renders the policy void if the property insured is a factory building and is operated after ten o'clock at night or some other given hour, or is not operated for ten consecutive days or some other specified time. This clause may be waived by agreement with the insurance company, but many manufacturers have shut down work in their factory buildings from time to time, not knowing that if during that time a fire should occur they would have no claim on the insurance company.

The insured is required, in case of loss, to give immediate notice to the company in writing. The damaged goods must be inventoried, and a proof of loss duly sworn to and filed within sixty days.

If the insured desires to store a gasoline automobile on private premises it is necessary to first obtain the consent of the insurance company in writing.

The standard form of fire insurance was not written in the interest of the insured. Therefore, attention should be given to all the details and requirements relating to the insurance.

### (655) PROPERTY INSURANCE RECORDS.

A separate account should be kept for real property, such as buildings and machinery, the value of which seldom changes, and another for personal property or stock, the value of which constantly changes.

PLANT

OCCUPANCY ..... SECTION .....

SIZE ..... STORIES ..... CONSTRUCTION .....

INSURANCE, $ ..... DATE .....

BUILDING ACCOUNT

| DATE | MEMO | DEBIT | DATE | MEMO | CREDIT |
|---|---|---|---|---|---|
| | | | | | |

INSURANCE, $ ..... DATE .....

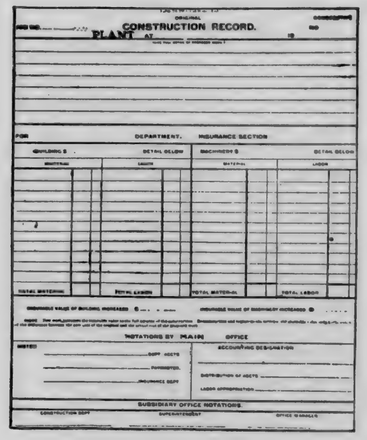
MACHINERY ACCOUNT

| DATE | MEMO | DEBIT | DATE | MEMO | CREDIT |
|---|---|---|---|---|---|
| | | | | | |

FORM 1.








FORM 2.

CHICAGO PLANT

RECAPITULATION OF INSURANCE

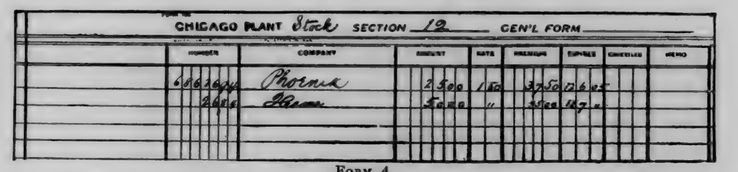
AT CLOSE OF BUSINESS, SATURDAY _____ 19

| RISK | SECTION | VALUE OF STOCK | INSURANCE ON STOCK RATE | INSURANCE ON STOCK AMOUNT | PER CENT | INSURANCE ON BUILDING RATE | INSURANCE ON BUILDING AMOUNT | INSURANCE ON MACHINERY RATE | INSURANCE ON MACHINERY AMOUNT | TOTAL INSURANCE |
|---|---|---|---|---|---|---|---|---|---|---|
| Wagon Shop | 1 | | | | | | | | | |
| Carriage " | 2 | | | | | | | | | |
| Blacksmith Shop | 3 | | | | | | | | | |
| Finishing " | 4 | | | | | | | | | |
| Office | 5 | | | | | | | | | |
| Wagon Warehouse | 6 | | | | | | | | | |
| " " | 7 | | | | | | | | | |
| Carriage " | 8 | | | | | | | | | |
| " " | 9 | | | | | | | | | |
| Wood Stove House | 10 | | | | | | | | | |
| | 11 | | | | | | | | | |
| | 12 | | | | | | | | | |

FORM 3.

As the standard fire insurance policies base the payment of loss on actual cash value of the property at the time of the fire, the property value must accordingly be kept on that basis. The buildings and machinery should, therefore, be appraised, and it is then an easy matter to keep track of changes by having reports made of additions, removals, replacements, etc. Depreciation should be deducted each year according to conditions.

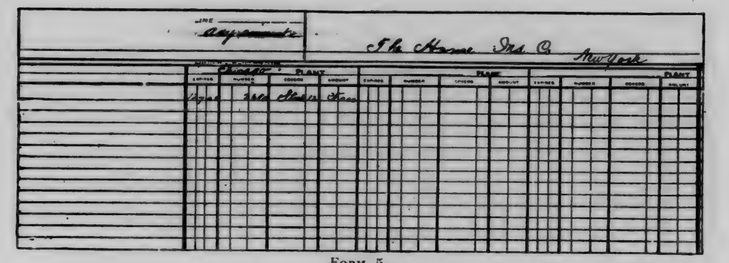
Form 1 is the Ledger account with the real property as above referred to.




FORM 4.

Form 2 is a satisfactory record for reporting additions, removals and replacements. It contains separate space for report of increase or decrease in insurable value. In case of a reconstruction job or a substitution of machines there is sometimes nearly as much insurable value removed as there is added.

With regard to the constantly changing value of merchandise stock, this is a very difficult problem to solve. The inventory figures may be taken as a basis, adding each day the value of goods received and deducting the value of goods going out, but this method always involves considerable expense.

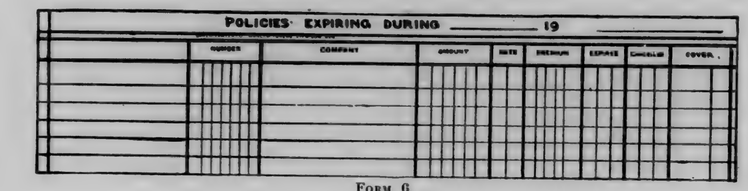



FORM 5.

Form 3 is a weekly recapitulation, which may be adjusted to meet different requirements.

In the case of a factory, daily reports as to material received and issued, and completed work delivered, may be used for the purpose of computing value.

Form 4 is a policy register or list of insurance in force on each risk. Separate sheets should be provided for each section, *i. e.*—building, machinery and stock. Expiring policies should be ruled off each day.




FORM 6.



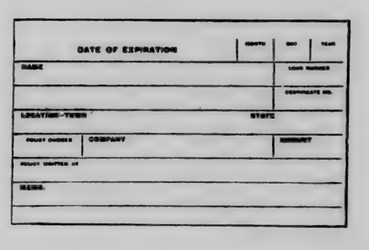


Form 5 is a "line book," or list of policies held in each company.—*F. Erion.*

### (656) INSURANCE EXPIRATIONS.

A labor-saving system to keep insurance expirations, in insurance offices, real estate offices and building and loan associations, is an inexpensive card carrying the name of the insured, the date of expiration, the name of the insurance company, number and amount of the policy.

The cards, keeping an accurate account of several thousand insurance policies, can be kept in a small tray indexed by years and months. The days can be designated by index cards numbered one to 31. Three sets of indexes by days is sufficient.




This device enables one to see at a glance the insurance policies expiring on a certain day; and a few moments' daily examination is all the time needed to keep all expiring policies covered.

The cumbersome agency record as a reference on expirations is done away with. In insurance offices the use of a card of this kind as a reminder that orders for the renewal of expiring policies must be looked up and the policies renewed, is indispensable.

These cards have been used by a building and loan association which has some 2,000 insurance expirations to cover. Two years' use have proven the cards' reliability and labor-saving worth.—*P. Lawrence.*

### (657) FIRE INSURANCE RECORDS.

The following is an outline of a card system used in a large insurance agency business for keeping track of policies and risks. This has been found very satisfactory in use, and is undoubtedly worthy of examination by those who require records of this kind.

Illustration 1 is the record made at the time the policy is written. This is a card and is filed in a cabinet under the head of "new business." This card is made in duplicate, a copy being mailed to the home office.

| Expires | | | Name of Assured | Smith John |
|---|---|---|---|---|
| Month | Day | Year | | |
| Nov. | 25 | 06 | Address | Bernardsville, N.J. |
| Policy No. 8729 | | | Company | THE AMERICAN FIRE INSURANCE CO. |
| Property | 2000.00 – Dwg. | | Amount | $2550.00 |
| | 500.00 – Barn | | Premium | $ 20.50 |
| | 50.00 – Cow-Horse | | Rate | 75-1.00 |
| | 2550.00 | | Term | 3 Yrs. |
| | | | Register Folio | 398 |

FORM 1.

Assured Smith John

Address Bernardsville, N.J.

| Company | Policy No. | Amount | Expiration | | | Property |
|---|---|---|---|---|---|---|
| | | | Month | Day | Year | |
| N.Y.U. | 20206 | 3200 | Nov. | 4 | 1906 | Line |
| C.U. | 39396 | 3200 | " | 4 | 1906 | " |
| G.A. | 404870 | 3200 | " | 4 | 1906 | " |
| F.P. | 69328 | 2650 | " | 18 | 1906 | Farm C.R. |
| Penn. | 77179 | 2500 | " | 20 | 1906 | Res & H.H.G |
| Acre | 8729 | 2550 | " | 25 | 1906 | Farm L.C.R. |
| Niag. | 77491 | 1150 | Dec | 4 | 1906 | Farm C.R. |

FORM 2.

Form 2 is a card record of the insurance companies covering the risk, this information being necessary in case of an adjustment being necessary in case of fire.

It will be seen, therefore, that by this system of record we obtain the following information:

Date of expiration; amount of insurance carried by us on insured; amount of insurance carried by other companies on the same or exposing risks; rate at which insurance is written and premium premises cover.

### (660) CO-INSURANCE CLAUSES.

#### THE 80 PER CENT. CO-INSURANCE CLAUSE.

The New York standard eighty per cent. co-insurance or average clause reads as follows:

"This company shall not be liable for a greater proportion of any loss or damage to the property described herein than the sum hereby insured bears to eighty per centum of the actual cash value of said property at the time such loss shall happen.





5260
2

Loan No. Policy No. Agency

Name Amt. of Loan $ Interest $

Loan Matures Policy Matures

Address

| PAYMENTS OF INTEREST | | | | PAYMENTS OF INTEREST | | | |
|---|---|---|---|---|---|---|---|
| Year | Date Paid | Amt. Paid | Remarks | Year | Date Paid | Amt. Paid | Remarks |
| 1907 | | | | 1917 | | | |
| 1908 | | | | 1918 | | | |
| 1909 | | | | 1919 | | | |
| 1910 | | | | 1920 | | | |
| 1911 | | | | LOANS REFUNDED | | | |
| 1912 | | | | Date | | Amt. Refunded | How Refunded |
| 1913 | | | | | | | |
| 1914 | | | | | | | |
| 1915 | | | | | | | |
| 1916 | | | | | | | |

(658) INSURANCE POLICY LOAN RECORD.

| Loss No. / Claim No. | Grade | Occupation | Month Paid | Year |
|---|---|---|---|---|
| Name of Assured | | Age | Employed by No. 10½ | |

HOME TREATMENT CLAIMS

INJURY | State | County | Date of Policy: Day / Month / Year

Agent or Agency | Policy No.

Premium $ | Death, $ | Sickness, $ | Injury, $ | Applied, | Paid by | Check No. $ | Days Disabled | Total Amt. Paid, $

Particulars of Disability

Card | Remarks:

(659) INDEMNITY RECORD.

JAN. APR. JULY OCT

BURGLARY

POLICY NO. O_____ DATE_____ 190__ TERM MONTHS____ PAID__ 190__

INSURED_____

ADDRESS_____

LOCATION RISK_____

FORM POLICY_____ PREMIUM $_____

PREMISES OCCUPIED ARE_____

TOTAL VALUE STOCK $_____ NO. MESSENGERS_____

OCCUPATION INSURED_____

DESCRIPTION STOCK_____

$_____ ON_____

$_____ ON_____

$_____ ON_____

$_____ ON_____

$_____ TOTAL_____ BROKER OR AGENT_____

(659A) BURGLARY INSURANCE RECORD.

CO-INSURANCE CLAUSES (Cont'd).

"In case of claim for loss on property described herein, not exceeding five per cent. of the maximum amount named in the policies written thereon and in force at the time such loss shall happen, no special inventory or appraisement of the damaged property shall be required.

"If the insurance under this policy be divided into two or more items these clauses shall apply to each separately.

"In the event of the insurer having insurance in force to an amount equal to or exceeding eighty per cent. of the actual cash value of his property, the co-insurance clause has no bearing whatever upon an adjustment any more than if it was contained in the policy. If, on the other hand, the insurance falls below eighty per cent. of the property value and a partial loss is sustained, the clause becomes operative (though in case of total loss it would be of no effect). Following is an example illustrating the working of this clause in the case of a partial loss:

| | | |
|---|---|---|
| Total cash value of the property insured..... | | $10,000 |
| Insurance required under eighty per cent. clause..... | | 8,000 |
| Actual insurance, six-eighths, or..... | $6,000 | |
| Insured becomes co-insurer for deficiency with eighty per cent. clause two-eighths, or..... | 2,000 | 8,000 |





| | | |
|---|---|---|
| Loss occurs at forty per cent. ($4,000) of total cash value at which companies pay six-eighths, or... | 3,000 | |
| And insured pays two-eighths, or..... | 1,000 | 4,000 |

"In case of total loss under the same conditions as above, the liability of the insurance companies would be limited to the maximum amount of their policies, $6,000."

THE 100 PER CENT. CO-INSURANCE CLAUSE.

The New York standard one hundred per cent. co-insurance or average clause reads as follows:

"This company shall not be liable for a greater proportion of any loss or damage to the property described herein than the sum hereby insured bears to one hundred per cent. of the actual cash value of said property at the time such loss shall happen.

"In case of claim for loss on the property described herein not exceeding five per cent. of the maximum amount named in the policies written thereon and in force at the time such loss shall happen, no special inventory or appraisement of the undamaged property shall be required.

"If the insurance under this policy shall be divided into two or more items, these clauses shall apply to each item separately.

"In the event of the insurer having insurance in force to an amount equal to or exceeding one hundred per cent. of the actual cash value of his property, the co-insurance clause has no bearing whatever upon an adjustment any more than if it was not contained in the policy. If, on the other hand, the insurance falls below one hundred per cent. of the property value and a partial loss is sustained, the clause becomes operative (though in case of a total loss it would have no effect). Following is an example illustrating the working of this clause in case of partial loss:

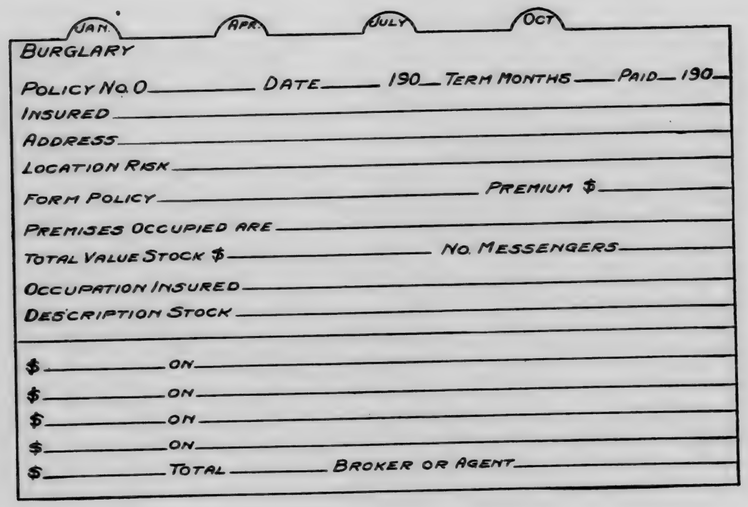
| | | |
|---|---|---|
| Total cash value of property insured..... | | $10,000 |
| Insurance required under one hundred per cent. clause | | 10,000 |
| Actual insurance, six-tenths, or..... | $6,000 | |
| Insured becomes co-insurer for deficiency to comply with one hundred per cent. clause, four-tenths, or ..... | 4,000 | 10,000 |
| Loss occurs at forty per cent. ($4,000) of total cash value, of which the companies pay six-tenths, or | 2,400 | |
| And insured pays four-tenths, or..... | 1,600 | 4,000 |

"In case of a total loss, under same conditions as above, the liability of the insurance companies would be limited to the maximum amount of their policies, $6,000."

## (661) INTEREST.

The amount charged for the use of money, usually on a percentum basis.

The legal rates of interest in the United States vary greatly in the different States and Territories.




(659A) BURGLARY INSURANCE RECORD.

CO-INSURANCE CLAUSES (Cont'd).

"In case of claim for loss on property described herein, not exceeding five per cent. of the maximum amount named in the policies written thereon and in force at the time such loss shall happen, no special inventory or appraisement of the damaged property shall be required.

"If the insurance under this policy be divided into two or more items these clauses shall apply to each separately.

"In the event of the insurer having insurance in force to an amount equal to or exceeding eighty per cent. of the actual cash value of his property, the co-insurance clause has no bearing whatever upon an adjustment any more than if it was contained in the policy. If, on the other hand, the insurance falls below eighty per cent. of the property value and a partial loss is sustained, the clause becomes operative (though in case of total loss it would be of no effect). Following is an example illustrating the working of this clause in the case of a partial loss:

| | | |
|---|---|---|
| Total cash value of the property insured..... | | $10,000 |
| Insurance required under eighty per cent. clause..... | | 8,000 |
| Actual insurance, six-eighths, or..... | $6,000 | |
| Insured becomes co-insurer for deficiency with eighty per cent. clause two-eighths, or..... | 2,000 | 8,000 |





| | | |
|---|---|---|
| Loss occurs at forty per cent. ($4,000) of total cash value at which companies pay six-eighths, or... | 3,000 | |
| And insured pays two-eighths, or..... | 1,000 | 4,000 |

"In case of total loss under the same conditions as above, the liability of the insurance companies would be limited to the maximum amount of their policies, $6,000."

THE 100 PER CENT. CO-INSURANCE CLAUSE.

The New York standard one hundred per cent. co-insurance or average clause reads as follows:

"This company shall not be liable for a greater proportion of any loss or damage to the property described herein than the sum hereby insured bears to one hundred per cent. of the actual cash value of said property at the time such loss shall happen.

"In case of claim for loss on the property described herein not exceeding five per cent. of the maximum amount named in the policies written thereon and in force at the time such loss shall happen, no special inventory or appraisement of the undamaged property shall be required.

"If the insurance under this policy shall be divided into two or more items, these clauses shall apply to each item separately.

"In the event of the insurer having insurance in force to an amount equal to or exceeding one hundred per cent. of the actual cash value of his property, the co-insurance clause has no bearing whatever upon an adjustment any more than if it was not contained in the policy. If, on the other hand, the insurance falls below one hundred per cent. of the property value and a partial loss is sustained, the clause becomes operative (though in case of a total loss it would have no effect). Following is an example illustrating the working of this clause in case of partial loss:

| | | |
|---|---|---|
| Total cash value of property insured..... | | $10,000 |
| Insurance required under one hundred per cent. clause | | 10,000 |
| Actual insurance, six-tenths, or..... | $6,000 | |
| Insured becomes co-insurer for deficiency to comply with one hundred per cent. clause, four-tenths, or ..... | 4,000 | 10,000 |
| Loss occurs at forty per cent. ($4,000) of total cash value, of which the companies pay six-tenths, or | 2,400 | |
| And insured pays four-tenths, or..... | 1,600 | 4,000 |

"In case of a total loss, under same conditions as above, the liability of the insurance companies would be limited to the maximum amount of their policies, $6,000."

## (661) INTEREST.

The amount charged for the use of money, usually on a percentum basis.

The legal rates of interest in the United States vary greatly in the different States and Territories.

By the "legal rate" is meant that rate of interest which would be fixed by a court of law in case no rate had been determined by agreement or contract.

(662) INTEREST ADJUSTMENT OR APPORTIONMENT.

The distribution of accrued interest not yet due, either payable or receivable.

(663) INTEREST COMPUTED ON DAILY BALANCES.

| Date. | Dr. | Cr. | Balances. Dr. | Days. | Interest Numbers. Dr. | Cr. |
|---|---|---|---|---|---|---|
| Jan. 2 | $ 326.29 | | $ 326.29 | 1 | 3 | |
| 3 | 439.58 | | 765.87 | 1 | 8 | |
| 4 | 1,627.88 | | 2,393.75 | 1 | 24 | |
| 5 | 1,242.88 | | 3,636.63 | | | |
| 6 | | | 3,636.63 | 2 | 73 | |
| 7 | 1,280.88 | | 4,917.51 | | | |
| 8 | | | 4,917.51 | 2 | 98 | |
| 9 | 1,660.27 | | 6,577.78 | | | |
| 10 | | | 6,577.78 | 2 | 132 | |
| 11 | 1,210.76 | | 7,788.54 | | | |
| 12 | | | 7,788.54 | | | |
| 13 | | | 7,788.54 | 3 | 234 | |
| 14 | 1,038.41 | | 8,826.95 | 1 | 88 | |
| 15 | | $247.34 | 8,579.61 | 1 | 86 | |
| 16 | 14.21 | | 8,593.82 | 1 | 86 | |
| 17 | 39.21 | | 8,633.03 | 1 | 86 | |
| 18 | 1,054.71 | | 9,687.74 | 1 | 97 | |
| 19 | 838.04 | | 10,525.78 | | | |
| 20 | | | 10,525.78 | 2 | 211 | |
| 21 | 994.55 | | 11,520.33 | 1 | 115 | |
| 22 | 1,134.25 | | 12,654.58 | 1 | 127 | |
| 23 | 1,095.70 | | 13,750.28 | 1 | 137 | |
| 24 | 1,082.15 | | 14,832.43 | 1 | 148 | |
| 25 | 949.15 | | 15,781.58 | | | |
| 26 | | | 15,781.58 | | | |
| 27 | | | 15,781.58 | 3 | 474 | |
| 28 | 846.90 | | 16,628.48 | 1 | 166 | |
| 29 | 864.20 | | 17,492.68 | 1 | 175 | |
| 30 | 927.19 | | 18,419.87 | 1 | 184 | |
| 31 | | 43.31 | 18,376.56 | 1 | 183 | |
| | | | $293,508.03 | | 2,935 | |

To find amount of interest chargeable on above daily balances at 5 per cent., multiply total of balance of daily balances by rate and divide by 360, obtaining $40.76 as the answer. A shorter way is to divide the days by the rate and with remainder divide total of balance of daily balances. The two columns to the right of the "Balances" column illustrate another method of obtaining the same result.





(665) INTEREST ON CAPITAL ASSETS.

It is still customary in some corporate businesses to make a charge for interest on investment of capital assets, it being supposed that unless this is done the correct amount of profits earned by the trading transactions is not properly exhibited.

The capital invested in a concern is so invested for the purpose of making a profit by the use of said investment, for which purpose the business is established. The capital assets, therefore, should be treated just as any other assets, as both fixed and floating assets represent an investment made for identical purposes.

The charging of interest on capital assets is simply an unnecessary division of the profits made by the business, and cannot be justified by any reasonable argument.

(666) INTEREST AND DISCOUNT.

For comparative and statistical reasons, the disadvantage of combining two revenue items in one account is becoming generally recognized. The proper way to offset Interest paid out against Discount received is to play them against one another in the Profit and Loss account.

(667) SIMPLE INTEREST.

Simple interest is interest on the amount of the principal during the period of the use of the money. Thus:

6% on $100.00 for 2 years is $12.00.

In some building societies simple interest is allowed on monthly payments on shares until said shares are matured, or fully paid.

A good rule to ascertain the amount of such interest on twelve monthly payments of $1 each is as follows:

Divide number of months (12) by two and add half a month=6½. Multiply by number of months (12)=78 months on which to compute interest on $1 at 6 per cent. per annum.

$$\frac{1\times 6\times 78}{12} = \frac{468}{12} = 39c$$

(668) COMPOUND INTEREST.

Compound interest is interest on the amount of principal and interest accrued and unpaid. Thus:

6% on $100.00 for 2 years is

| | |
|---|---|
| First year 6% on $100.00 | $ 6.00 |
| Second year 6% on $106.00 | 6.36 |
| Total | $12.36 |

## (669) INVENTORY.

A schedule of assets or property.

The annual account of stock of a business.

An itemized list of goods or valuables with prices attached.

Inventories of goods are taken at cost, except where realizable value is affected by market fluctuations. It has, however, been contended that the value of a stock in trade should be computed on selling prices less average trade profit, for the reason that any profit realized over and above the average trade profit is, in reality, a profit on buying and not on selling. Thus, if a merchant has an opportunity to purchase a stock at much less than market prices and sells the stock at regular retail prices, the profit on the transaction is much greater than if the stock had been purchased in the ordinary way, and the excess profit, it is claimed, was obtained in the buying and not in the selling.

"The fundamental principle in valuing inventories is, valuation at cost or market price, whichever is the lower.

### SCHEDULE A—DEPRECIATION OF VALUES.

1. Either state the value at market price, $10 per cwt.; or,

2. Value the tobacco at original cost price, $12, and create a reserve account, charging the current profit and loss account with $2 per cwt. and crediting reserve account.

On the balance sheet deduct the reserve account from the inventory.

Should the market price remain constant, charge reserve account and credit inventory account; should again the market price go up, charge reserve account and credit profit and loss account.

### SCHEDULE B—APPRECIATION OF VALUES.

1. Either value the tobacco at cost price, $12 per cwt.; or,

2. Value the tobacco at market price, $15 per cwt., and charge profit and loss account with $3 per cwt. and credit reserve account.

Should the market price remain permanent, charge reserve account and credit profit and loss account; again, should the market go down to cost price, charge reserve account and credit inventory account.

### COMMENTS.

Profits should not be anticipated; no profits have been realized until goods have been sold and accounts collected.

Hence, such anticipated profits, if taken into account at all, should go to temporary reserve account, not to profit and loss account."

For taking inventory, it is convenient to have specially ruled blanks (See Form ), which can be obtained of most manufacturing stationers. These blanks are provided with columns for quantities, description, price, check column, amount, while the heading of the sheet is arranged to provide for date of inventory, name of clerks taking it, and name of clerks checking extensions.





As an inventory progresses, odd lots of shop-worn articles and poor sellers should be given a distinguishing mark, so that special attention may be given them with a view to adopting some method for their disposition.

One person should call off the items and another enter them, after which they should be "called back." As soon as the goods are taken down and you leave for another part of the stock, mark the place "taken," so that if any of the goods are sold before the inventory is completed they may be deducted from the total amount. To do this properly a book should be kept of "goods sold during the inventory," and at the close deduct the total amount from the inventory.

It will be quite an advantage to head the pages of the inventory, mentioning the separate parts of the store, as, for instance: "First floor, east side;" "Second floor, west side;" "Cellar," etc., in order that it may be convenient for ready reference in time to come, as well as for present use, as a "stock memorandum" from which to order up such goods as may be needed for future trade, making it also easy to locate the stock.

A large number of book-keepers do not seem to thoroughly understand the method by which inventory is brought into the books, and we therefore append the following explanation:

At the close of the year the books will show amount of goods purchased and amount of goods sold, but not the amount of goods on hand. To remedy this omission, inventory is taken and the amount charged as an asset and credited either to purchase account as a reduction of cost, or it may be credited direct to profit and loss. It should be understood, however, that while the amount of the inventory can be credited as above indicated direct to profit and loss, the inventory itself is not a credit to profit and loss, but only represents the excess of sales over purchases. Thus, the purchases for a year amount to $8,765.94, and the sales $12,395.40; the inventory at the close of the year is $2,674.80, and by deducting the inventory from the purchases, we find that the cost of the goods sold was $6,091.14; thus showing a gross profit on the sales of $6,304.26.

The ideal method, however, is, in our opinion, to carry three accounts on the books, one for purchases, one for sales, and one for inventory. At the close of the year open a temporary account called a "Trading Account;" credit Purchase account and charge Trading account with the amount of the net purchases; charge Sales account, credit Trading account with the amount of net sales; charge Inventory account, credit Trading account with the amount of new inventory, and to close out the old inventory credit Inventory account and charge Trading account. The balance of the Trading account will then show gross profit. Into this Trading account should also be closed labor of manufacturing product and other costs of production. (See also Trading Account.)

## (670) PERPETUAL INVENTORY.

In any business a perpetual inventory involves a certain amount of extra labor, but those who have had experience assert that the result more than compensates.

SAMPLE OF INVENTORY SHEET (A)

Date _____ Sheet No. _____
Examined _____ Total # _____
Location of Goods _____

| Space for Binding | Quality | Goods | No | Size | List | Discount | Net | Cost Extended | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

FORM 1.

H. S. JONES HARDWARE CO., Hartford, Conn.

ARTICLE Square Head Bolt with Nut

SIZE OR STYLE ½ x 4"

| | DATE | QUANTITY RECEIVED | PRICE | COST | | WEEK ENDING | MON. | TUE. | WED. | THU. | FRI. | SAT. | QUANTITY SOLD | COST | | QUANTITY ON HAND | COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1866 | | | | | 1866 | | | | | | | | | | | |
| | Jan 1 | 5000 | Prospect Mfg Co | 12½ | 50 | Jan 8 | 50 | 100 | 200 | 100 | 500 | 600 | 1550 | 62 | 77 | | |
| | 15 | 10,000 | " | 80% | 00 | | | | | | | | | 386 | 70 | | |
| | | 15,000 | | 80% | 70 | 15 | 100 | 50 | 50 | 50 | — | — | 250 | 10 | 18 | | |
| | | | | | | 22 | — | — | 100 | — | — | — | 100 | 4 | 00 | | |
| | | | | | | 29 | 1000 | — | — | — | — | — | 1000 | 40 | 50 | 10100 | 403 85 |
| | | | | | | | | | | | | | 4900 | 111 | 45 | | |

FORM 2.

PENSACOLA HARDWARE CO. Min. 10.

ARTICLE Files, Bastard Style or Size 6" Half round Max. 40

Selling Price 20¢ Manufacturer Simmons Hdw. Co. Catalog No. 5.

| MONTH | On Hand Last Day Previous Month | RECEIVED QTY | RECEIVED PRICE | RECEIVED COST | TOTAL | SOLD QUANTITY | ON HAND QTY | ON HAND PRICE | ON HAND VALUE | ORDERED QUANTITY | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JANUARY | 25 | 15 | 12 | 1 80 | 40 | 5 | 35 | 12 | 4.20 | None | |
| FEBRUARY | | | | | | | | | | | |
| MARCH | | | | | | | | | | | |
| APRIL | | | | | | | | | | | |
| MAY | | | | | | | | | | | |
| JUNE | | | | | | | | | | | |
| JULY | | | | | | | | | | | |
| AUGUST | | | | | | | | | | | |
| SEPTEMBER | | | | | | | | | | | |
| OCTOBER | | | | | | | | | | | |
| NOVEMBER | | | | | | | | | | | |
| DECEMBER | | | | | | | | | | | |
| TOTALS | | | | | | | | | | | |

FORM 4.





KING HARDWARE COMPANY, SAVANNAH, GA.

SHEET NO. ____

LIMIT — SIZE — ARTICLE

BUYER: STYLE, TRADE NAME, TRADE NO., CATALOG NO. | OUR: STYLE, TRADE NAME, TRADE NO., CATALOG NO. | ____ FEET, ____ POUNDS, ____ ARTICLES | TO A: ____ FEET, ____ POUNDS, ____ ARTICLES

PACKED | TO A | MAX. STOCK | MIN. STOCK | STORED IN SECTION NO.

| RECEIPTS | | | | | | DISBURSEMENTS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DATE 19.... | QUANTITY ORDERED | QUANTITY RECEIVED | QUANTITY RETURNED TO STOCK | VALUE | COST UNIT | DATE 19. | SALES NO. | QUANTITY SOLD | COST UNIT | VALUE SALES |
| | | | | | | | | | | |

SHIPPING ORDER

KING HARDWARE COMPANY, SAVANNAH, GA.

CUSTOMERS ORDER
RECEIVED
SALESMAN
TERMS
INVOICE No.
DATE

SHIP TO
INVOICE TO
SHIP VIA
FROM

| QUANTITY ORDERED | QUANTITY SHIPPED | | BILLED PRICE | BILLED AMOUNT | COST PRICE | COST AMOUNT |
|---|---|---|---|---|---|---|
| | | | | | | |

PACKED BY — PACKED IN
INSPECTED BY — ENTERED ON STOCK LEDGER
STOCK CLERK

FORM 3.

FORM 1 — LOCKS #245

| INVENTORY ADDITIONS and RETURNS | | | SALES ORDER NO and DATE | | QUANTITY SHIPPED | | BALANCES QUANTITY | | BALANCES PRICE | | BALANCES INVENTORY VALUE | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 500 | dz | 1/1 | | | | | | | | | | | |
| | | | 461 | 1/8 | 5 | dz | | | | | | | |
| | | | 460 | 1/8 | 12 | " | | | | | | | |
| | | | 462 | 1/7 | 2 | " | | | | | | | |
| 3 | dz | 1/8 | | | | | | | | | | | |
| | | | 490 | 1/29 | 400 | " | | | | | | | |
| 500 | dz | 1/30 | 491 | 2/3 | 60 | " | | | | | | | |
| 1003 | | | 492 | 2/5 | 40 | " | 464 | dz | 2/5 | 12 00 | 5 | 808 00 | |
| 484 | dz | 2/6 | | | | | | | | | | | |
| | | | 493 | 2/7 | 5 | " | | | | | | | |

FORM 5.

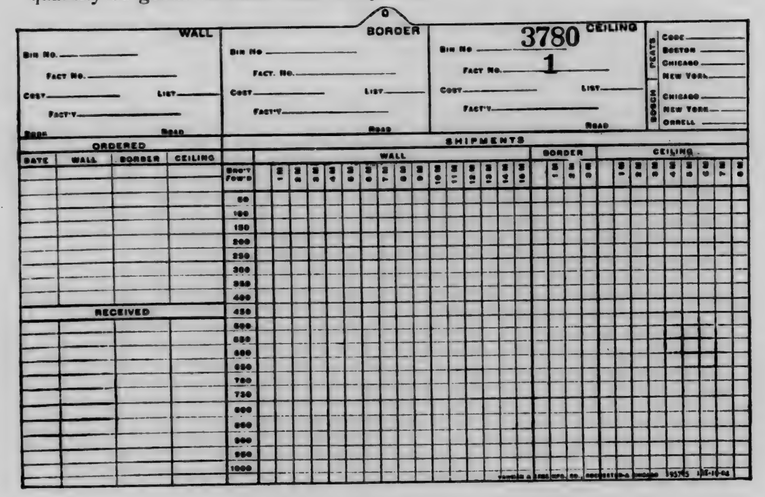
| INVENTORY ADDITIONS and RETURNS | | | | | | | SALES ORDER NO | | QUANTITIES SHIPPED | | | | | | BALANCES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DATE | 0 | ½ | 1 | 2 | 3 | 4 | NO | DATE | 0 | ½ | 1 | 2 | 3 | 4 | 0 | ½ | 1 | 2 | 3 | 4 | REMARKS |
| 1/1 | 300 | 600 | 600 | 900 | 1000 | 1200 | | | | | | | | | | | | | | | |
| | | | | | | | 500 | ½ | 20 | 25 | 30 | | | 200 | 480 | 575 | 770 | | | 1000 | |
| | | | | | | | 501 | ½ | 5 | 10 | | | 100 | | 475 | 565 | | | 900 | | |
| R ½ | | 25 | | | | | | | | | | | | | | 590 | | | | | |
| A ½ | 200 | | | | | | | | | | | | | | 675 | | | | | | |
| | | | | | | | 502 | ½ | | | | 40 | 20 | | | | | 660 | 880 | | Jan 11 - 08 |
| | | | | | | | | | | | | | | | 675 | 590 | 770 | 660 | 880 | 1000 | Column on hand |
| | | | | | | | | | | | | | | | .05 | .08 | .09 | .10 | .11 | .12 | Inventory Price |
| | | | | | | | | | | | | | | | 33.75 | 47.20 | 69.30 | 66.00 | 96.80 | 120.00 | Total $ 473.30 |
| 1/31 | 675 | 590 | 770 | 660 | 880 | 1000 | — | — | | | | | | | | | | | | | |

FORM 6.

In a wholesale hardware business it is a good plan to sectionalize goods under such headings as Machinist's Supplies, Carpenter's Supplies, etc., as well as to provide separate cards or sheets for each article. This suggestion holds good for perpetual inventories devised for any kind of business.

The time at which to start a perpetual or book inventory is, of course, at date of actual inventory.

By the use of such a form as is here illustrated, the inventory may be taken at any time desired during the month, and in practice it is found that as a rule the discrepancy between the perpetual inventory and the actual inventory is very small. In some cases where goods have been stolen the perpetual inventory, of course, does not disclose that fact until the supply of those goods has been exhausted and it is necessary to place a new order. Then the inventory card is looked up and it shows that there ought to be a larger quantity of goods on hand than is reported.








Stock Record of ELECTRICAL DEPT 5175

Cat. No. Card No. 5

| STOCK RECEIVED | | | | | | | | STOCK GIVEN OUT | | | | | | | | | | AMOUNT ON HAND |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Req. | Number Req. | Quant. Ordered | Date Rec'd | From Whom | Via | Quant. Rec'd | Price Ea. | Date Order Rec'd | Number Order | No. Shop Order | Quant. Ordered | SHIPMENT Date | SHIPMENT No. of | SHIPMENT Quant. | SHIPMENT Via | PRICE Ea. | PRICE Total | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

DAIRY PREP. NO. LETTER

STOCK CARD

| CHARGED TO | | | ACCOUNT | | | STOCK ON HAND / USED | | |
|---|---|---|---|---|---|---|---|---|
| Invoice Dated | FROM | Voucher No. | QUANTITY | | COST | 19 | Quantity | COST |
| 19 | Brought Forward | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

The cards or sheets should be ruled on both sides so that they will last a considerable time.

In many businesses the store's department is divided into twenty-six sections. Actual inventory of one of these sections is taken each day and the result compared with the perpetual inventory card, but if this cannot be conveniently arranged, a proof can be fairly well arrived at by unexpectedly taking some one article and comparing the actual inventory with the quantity on hand, as shown by the inventory ledger.

The next illustration is somewhat elaborate, as it affords information which is evidently intended for others than the stores-keeper. We suppose for the benefit of the purchasing agent.

The third form is a shipping order, a duplicate of which is handed to the stores clerk.

Illustration No. 4 is well arranged. This form is the monthly summary and is printed on the back of the card. The daily record is printed on the front of the card.

Illustration No. 5 is a form of perpetual inventory to be used for articles of which there is but one size or style.

Illustration No. 6 is intended to be used when there is more than one size or style of which it may be necessary or advisable to keep a separate account.

In the latter form all withdrawals from stock are to be entered under the heading of "Quantities Shipped." These forms show only one item with-

drawn each day, but if there are several withdrawals it is only necessary to foot the separate items, deduct the total from last amount on hand as shown by last balance and enter the final balance.

(Also see Manufacturing Accounts and Costs.)

### (671) INVESTMENT.

A title frequently given by merchants who are sole proprietors of the business to an account representing their original capital and the accretions to or deductions therefrom.

In a partnership, the amount contributed by each partner to the capital of the partnership.

Generally, a sum paid in purchase of property.

#### (672) INVESTMENT FUND.

The amount diverted from profits for the purchase of securities when the surplus cannot be profitably used in the development of a business. Called a "Fund," when a specified appropriation is made yearly for the purpose of establishing a reserve against certain eventualities.

### (673) INVOICE.

A bill for goods sold or purchased.

An inventory.

Every store should have some system of keeping track of invoices from the time they are received until they are finally entered upon the books. It should be a system that will fix the responsibility beyond question for everything that is done in connection with each invoice. A good plan is to have a rubber stamp, something like this:

Invoice No. .....
Computation Ex'd by.....
Checked by .....
Marked by .....
Prices Ex'd by .....
Entered by .....

As fast as the invoices are received put this stamp upon them. The invoice should then be examined as to the correctness of computations, and the one that does this should put his name on the second line in the form. The person who checks the bill to ascertain that all the goods billed have been received, writes his initials on the third line; the one that marks the goods should write his on the fourth, and the one who examines the prices, to see that you are not being overcharged, should write his on the fifth line. This leaves the sixth for the name of the book-keeper, who finally enters the invoice on the books.

For large business systems and factories, see Manufacturing Cost and Purchase Orders.





#### (674) INVOICE BOOK.

Generally a book in which purchase invoices are posted. These books are manufactured with total and distribution columns, thus possessing the features of both a file of original bills and a purchase record. Suitable for small businesses.

#### (675) INVOICE COPY BOOK.

An impression book in which invoices are copied. Where this method is employed the postings to customers' accounts are usually made from the impression book.

This method is now almost generally superseded by the use of carbon sheets, the invoices being typewritten.

### (676) IRRIGATION COSTS.

#### CLASSIFICATION OF ACCOUNTS FOR OPERATION AND MAINTENANCE.

The classification of the Operation and Maintenance Cost Ledger accounts presents some difficulties, partly from differences of opinions as to the extent to which the analysis should be carried and partly from an unsettled condition as to the terminology for various portions of irrigation projects, and for operations connected therewith. There are differences of opinion as to whether the nature of the expense incurred should always be shown. We will, however, presume that it is an accepted principle of cost accounting that the accounts should show the purpose of all expense whether or not they indicate the nature of it.

Our Operation and Maintenance Cost accounts should then divide into those for Operation and those for Maintenance.

Operation is the process of using an irrigation project for the development, storage, carriage and distribution of water for irrigation and other purposes, and is properly chargeable with all and only the necessary expense therefor that could not be eliminated if no repairs were required; and

Maintenance is the process of keeping an irrigation project up to a fair standard of excellence by providing necessary repairs, renewals and incidental betterments, the expense for which is not separable from repairs and renewals, and is properly chargeable with all and only the necessary expense therefor which is over and above the actual minimum cost of operation.

In other words, operation should include the labor costs for incidental repairs made by operating employes who are not allowed additional pay therefor, and maintenance should exclude all costs for repairs, etc., where the costs for operation could not have been reduced had not such incidental repairs been required and made. Betterments which are separable from repairs and renewals, as new or enlarged structures, should be charged to Construction Costs and carried in the Construction Cost Ledger.

Wherever there are two or more features or groups of features of any kind as shown thereon, additional similar accounts should be provided.

OPERATION AND MAINTENANCE COST LEDGER.

Operation
General Expense
Services, Engineering
Services, Accounting and Clerical
Labor, Men
Labor, Animals
Supplies, Miscellaneous
Equipment

Corrals
Labor, Men
Labor, Animals
Forage
Supplies, Miscellaneous
Depreciation in Equipment

——Dam, Headgates, and (miles of canal or other features)
Distribution, Labor, Men
Distribution, Labor, Animals
Protection, Labor, Men
Protection, Labor, Animals
Supplies, Miscellaneous

——Canals, Class A——miles (or Class B, C, etc.)
Distribution, Labor, Men
Distribution, Labor, Animals
Protection, Labor, Men
Protection, Labor, Animals
Supplies, Miscellaneous

——Power Plant (Steam, Electric or Water Electric)
Labor, Men
Labor, Animals
Fuel
Lubricants
Supplies, Miscellaneous
Equipment, Tools

——Pumping Stations (single or in groups—of same kind)
Labor, Men——
Labor, Animals
Supplies, Miscellaneous

——Coal Mine
Labor, Men——
Labor, Animals
Supplies, Miscellaneous
Equipment, tools, etc.

Having thus outlined the accounts designed to show the operating costs for distribution of water and protection of the system, we must now provide accounts which will set out the costs of maintenance which, as already stated, will include repairs, renewals and those betterments where the costs are not separable from those for repairs and renewals. The subdivision of the project into the features on which maintenance costs should be kept will probably be different from the arrangement of the accounts for operation. On canals the distance the ditch rider can cover and the number of turnout gates he can operate are the controlling factors in operating costs. Maintenance costs, however, may be more largely dependent upon topography, character of the soil, climatic conditions, design and material of the structures, etc. Accordingly, in the following outline the first arrangement of the features is according to whether their construction was mainly earth work, masonry, timber, or metal.

Maintenance
Canals, Class——, ——miles
Cleaning, Labor, Men
Cleaning, Labor, Animals
Raising Banks, Labor, Men
Raising Banks, Labor, Animals
Brushing, Labor, Men
Brushing, Labor, Animals
Repairing Breaks, Labor, Men
Repairing Breaks, Labor, Animals
Repairing Concrete Lining, Labor, Men
Repairing Concrete Lining, Labor, Animals
Repairing Concrete Lining, Materials and Supplies
Repairs, Miscellaneous, Labor, Men
Repairs, Miscellaneous, Labor, Animals
Repairs, Miscellaneous, Materials and Supplies





Reinforced Concrete Structures
——Structure (Important structures singly, others in groups of like kind)
Excavation and Backfilling, Labor, Men
Excavation and Backfilling, Labor, Animals
Pumping, Labor, Men
Pumping, Labor, Animals
Pumping Supplies, Miscellaneous
Repairing Concrete, Labor, Men
Repairing Concrete, Labor, Animals
Repairing Concrete, Cement
Repairing Concrete, Steel
Repairing Concrete, Lumber
Repairing Concrete, Materials and Supplies, Miscellaneous
Plain Concrete Structures
Timber Structures
Steel and Iron Structures
(accounts under each as for Reinforced Concrete Structures)

Power Plant
——Building
Repairs, Labor, Men
Repairs, Labor, Animals
Repairs, Lumber
Repairs, Stone, Brick, Cement, Lime, etc.
Repairs, Steel and Iron
Repairs, Miscellaneous Materials and Supplies
——Steam Boiler and Furnace
Repairs, Labor, Men
Repairs, Labor, Animals
Repairs, ——(classified materials)
Same for Engines, Dynamos and other Electrical Appliances, Pumps, etc.

Transmission Line
Repairs, Labor, Men
Repairs, Labor, Animals
Repairs, Poles
Repairs, Wire
Repairs, Insulators and Miscellaneous

Pumping Stations (singly or in groups)
——Building or Barge
Repairs, Labor, Men
Repairs, Labor, Animals
Repairs, (materials classified)

——Pumps
Repairs, Labor, Men
Repairs, Labor, Animals
Repairs, ——(materials classified)

Telephone System
Repairs, Labor, Men
Repairs, Labor, Animals
Repairs, Instruments
Repairs, Poles
Repairs, Wire
Repairs, Insulators and Miscellaneous

The reasons for providing that the accounts shall first be arranged in two groups, respectively covering the expenses of operation and of maintenance, may be restated as: First, the features upon which the expenses should be collected are not the same for the two classes, because the operation of two canals of practically the same dimensions with an equal number of gates to be handled should probably cost about the same amount, while the cost of maintenance will be dependent upon other conditions and will often be required separately for portions of the canal running through different materials and for structures of various kinds thereupon; second, operation costs will be practically a level expense year after year, for any given system, but maintenance costs will vary in different years, and on some features will increase with the age of structures; and, third, comparisons of the relative economy of different structures can best be obtained by contrasting the pure maintenance cost on each.

From accounts arranged as herein proposed it will be possible to derive the following data:

1. Actual annual cost of operation of any project.
2. Actual annual cost of operation of miles of canals and a unit cost per mile thereon.

3. Actual annual cost of development of——power and unit costs thereon.
4. Actual annual operating cost of supplying——acre feet of water to——farms and——acres of land and unit costs on each.
5. Actual annual cost of maintenance of any project.
6. Actual annual cost of maintenance of any feature or group of features.
7. Actual annual total cost of operation and maintenance of any project.
8. Average annual costs of operation and maintenance of any project, and of each.

### (677) ITEMIZING.

The act of setting forth particulars in detail instead of in totals.

### (678) JOINT STOCK COMPANY.

A business organization whose capital stock is fixed in amount and divided into shares, but the members of which are individually liable, as in case of a partnership, and in case of suit, all members must be joined both in suing and being sued.

A corporation not possessing the special advantages granted by corporation laws.

### (679) JOURNAL.

A book of original entry for record from which postings are made to ledger accounts.

A book used for cross, adjusting or closing entries under the double-entry system.

The journal is now restricted mostly to the correction of errors, transferring of balances, adjustment of entries, and such items as cannot be conveniently entered in subsidiary books of account referring particularly to the department of business to which the entries relate.

### (680) SALES AND PURCHASE JOURNALS.

The ordinary journal is a book provided with two money columns for sales or purchase records, the first column being used as a "make-up" column, and the total of each bill carried to the second column for posting.

### (681) DEPARTMENTAL JOURNAL.

Where a business is divided into several departments, a separate column is provided for the amount of each sale, or purchase, in each department.

### (682) CREDIT JOURNAL.

In some cases merchandise returns and allowances are carried in the sales and purchase journals, a separate column being provided for the purpose. Where, however, sales credits of this kind are very numerous they are usually recorded in a separate journal—called a "Credit Journal."

It was once the custom to "journalize" everything before posting—that is, sales were copied in the General journal from the Sales journal, purchases were treated in the same manner, and even the cash book was "journalized" before posting.





In these days this method of book-keeping is confined to those who know no better, and every effort is made to prevent useless labor and save the useless expenditure of time. To effect this, the cash book is now very generally used for entries of discount, freight, and allowances which properly belong to the cross-entry journal. Separate columns are provided for such entries, the totals only of which are posted at the end of each month to their representative accounts.

### (683) COLUMNAR JOURNAL.

We append an illustration of a modern columnar journal arranged to prove ledgers by sections. This form of journal can be modified to suit almost any business. All columns other than the ledger columns are marked with a check mark in the folio column, the totals only being posted once a month. The items of the ledger columns must be posted.

The motto of the book-keeper should be: "Post direct and use the journal as little as possible."

See Cash Journal and Journal Cash Book.

Journal CA

| Names | Folio | Cr. for Ledgr | City Ledg. | Accts Payble | Genl Ledg. | Mfg. % S. Fixt | Mfg. % Furn. | Store Fixtrs. | Furn. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

Dr. Journal

| | | Furniture | Store Fixtures | Mfg. % S. Fixt. | Mfg. % Furnit | Genl Ledg. | Accts Payble | City Ledgr. | Country Ledgr. | Folio | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

### (684) KEY FIGURES.

See Check Figure.

### (685) LABOR ACCOUNT.

An account representing expenditure for labor employed.

### (686) LABOR ADJUSTMENT.

Accrued labor not yet due which must be included in the liabilities when closing the books.

LABOR RECORDS.

See Manufacturing Cost and Pay-roll.

## (687) LANDLORD'S FIXTURES.

Fixtures which become the landlords' property when erected in buildings held on lease. Improvements on lease-hold property which cannot be removed by the tenant when the lease expires.

## (688) LAUNDRY BUSINESS ACCOUNTING.

A chart showing the numerous expense accounts should be carefully compiled, and these can with advantage be classified under three headings.

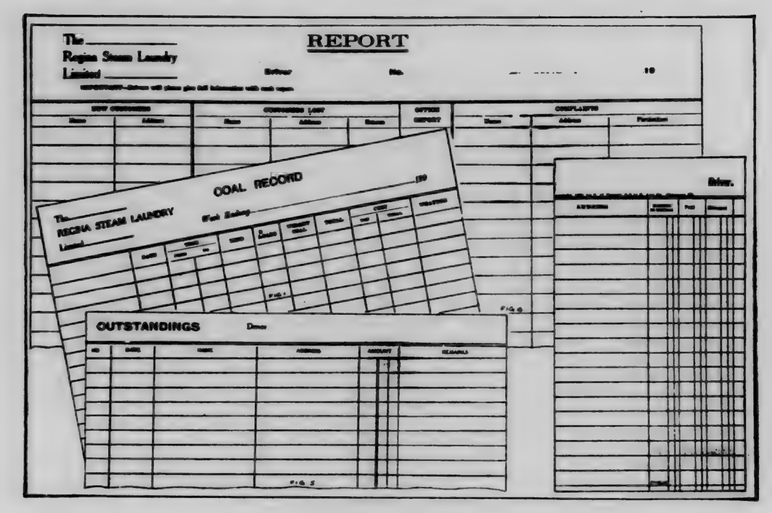
PRIMARY EXPENSES.

Insurance
Phone
Rent
Repairs, wagon
Taxes
Wages, management
Horse and Barn expense.

OPERATING EXPENSES.

which will consist of

Basket expense
Blueing,
Blankets, mangle coverings
Caustic soda,
Ch. Lime or other bleaching agent,








Coal or power,
Commissions, agents,
Duck and coverings,
Gasoline or gas,
Lists, parcel,
Lighting,
Machinery repairs,
Machine oils,
Office supplies,
Oxalic and other Acids,
Packings, engine
Paper, wrapping,
Shirt finishes,
Starch,
Shortages, damages,
Sodas,
Soaps,
Tags, marking
Twine, parcelling
Water.

INCIDENTAL EXPENSES.

To include advertising, interest, exchange, postage, telegrams, and that sore point, depreciation. When considering depreciation, the age of the plant, location and local conditions should guide you.

This list of operating expenses includes almost all the supplies used.

It will be found best to purchase not less than two or three weeks supplies at a time, as a small stock may mean loss of time through delay. The duplicate purchase orders and perpetual inventory in the regular style should be used. The stores should be in charge of some particular washman and supplies only issued on requisition.

The pay-roll should be provided with distribution columns for each department of the work, and a classification giving the value of the work processed in each department should be used and arranged to give all the information possible about this particular part of the business. The form should be made up every week.

There should also be a report showing the sources from which work is secured, such as local and out-of-town hotels, agents, local routes and parcels dropped at the office.

The parcel register is the basis for all laundry accounting. A list of the contents of each parcel was registered, as a rule, by most laundries, but this practice is gradually becoming a thing of the past. When complaints are made, the regular list should be returned and instructions to this effect should be given at the top of all lists used.

Form 4 shows a page from our Driver's Individual Cash Book. These books are made out by route clerk as soon as deliveries are made. Each driver has two books, one for every other day. The book used on Monday will be checked by cashier on Tuesday and so on.

Drivers cash in every evening. Any parcels left, unsettled for, are kept track of on Outstanding Form 6.

Complaints will come in any business. Form 6 is used in reporting any differences, no matter what they may be.—*W. Hurley.*

## (689) LEDGER.

The center and pivot of double entry.

The record which furnishes the business man reliable information as to his position, gains or losses.

A summary of details entered in auxiliary, or subsidiary, records. Thus the Cash Book contains the details of the Ledger cash account.

(690) BALANCE LEDGER.

See Bank Accounting.

| DATE | MEMO | FO | DEBITS | CREDITS | FO | MEMO | DATE | BALANCE | DATE | MEMO | FO | DEBITS | CREDITS | FO | MEMO | DATE | BALANCE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |

(691) CARD LEDGER.

See Card System.

(692) CREDITORS' LEDGER.

A purchase, or accounts payable ledger.

(693) CUSTOMERS' LEDGER.

A sales, or accounts receivable ledger.

(694) EXPENSE LEDGER.

A ledger specially devoted to the carrying of expense accounts. A nominal ledger.

(695) GUEST'S LEDGER.

See Hotel Accounting.

(696) HANDS LEDGER.

HANDS PAY ROLL & LEDGER

| Name | No | Bal. forw'd. | Date | Debits | | | Date | Credits | | | Bal. forw'd. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cash | Mdse | Total | | Returns etc | Wages | Total | |
| | | | | | | | | | | | |

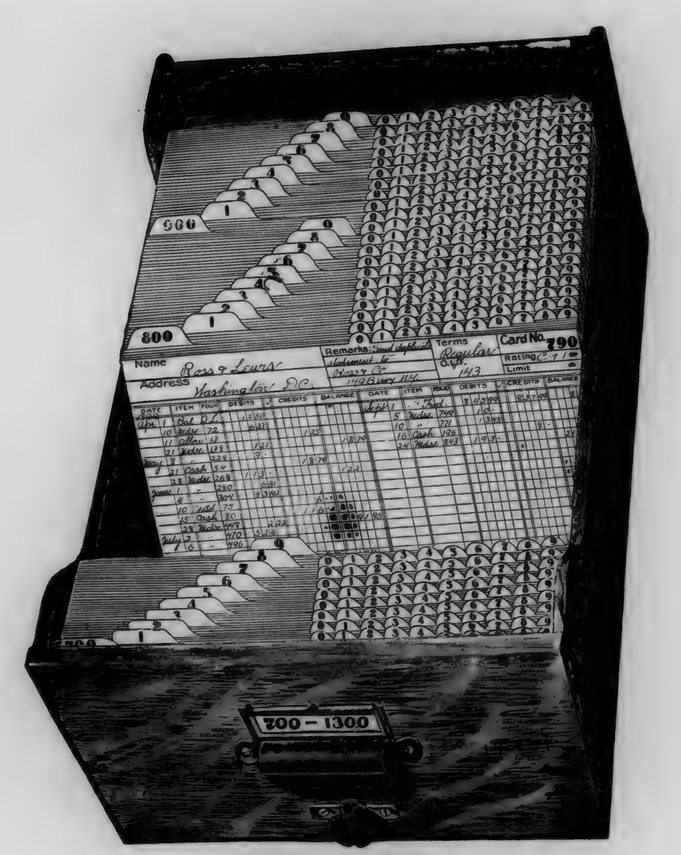
(697) EMPLOYES LEDGER.

A term sometimes used to describe a combination employes ledger and pay-roll. (See illustration.)

(698) INDEX LEDGER.

All ledgers which are arranged alphabetically, with index sheets interspersed between the end of one letter and the commencement of another, or with more or less distribution on the ledger itself by means of leather tabs attached to the tops or sides of the pages, are called "Self-Indexing Ledgers."

MODERN CARD LEDGER.




MODERN CARD LEDGER.





The principal difficulty experienced in a bound self-indexing ledger is that the Ba's, for instance, may considerably overrun the space allotted to them when manufacturing the ledger. In a loose-leaf ledger this difficulty is entirely obviated, for as many additional sheets may be added to any section as may be desired.

One form of self-indexing ledger combines both of the above mentioned features, *i. e.*, an index sheet intersecting the various letters of the alphabet, and tabs for the subdivisions of each letter.

(699) INDIVIDUAL LEDGER.

A personal ledger—customers' or depositors' ledger.

(700) INVOICE LEDGER.

A purchase ledger.

(701) LOOSE-LEAF LEDGER.

See Loose-Leaf Records.

(702) NOMINAL LEDGER.

A title sometimes used to indicate a ledger carrying only expense accounts.

(703) PERPETUAL LEDGER.

Both card and loose-leaf ledgers are called "Perpetual," because there is no transfer of accounts to new ledgers at the end of the year. Filled cards or leaves, or those containing closed accounts are removed. New cards or leaves are inserted to continue running accounts and to carry new accounts.

(704) PERSONAL LEDGER.

An individual ledger—customers' or creditors' ledger.

(705) PETTY LEDGER.

A ledger in which sundry accounts, or accounts with customers who are not expected to be regular purchasers, are kept.

(706) PRIVATE LEDGER.

(707) GENERAL LEDGER.

So far as their titles and uses are concerned, the general and private ledgers are practically synonymous. In large corporations the controlling accounts are usually carried in the private ledger so that the Secretary (who usually keeps this ledger) may draw up his own trial balance and call for the aggregate of balances of the individual ledgers from the individual ledger book-keepers. The private ledger also contains such other accounts as the proprietors of the business desire to preserve from the observation of the ordinary business employes.

(708) PURCHASE LEDGER.

A creditors', or accounts payable, ledger.

(709) SALES LEDGER.

A customers', or accounts receivable, ledger.

(710) SECTIONALIZED LEDGER.

A ledger in which accounts are classified as per charts illustrated under that heading.

(711) SELF-INDEXING LEDGER.

See Index Ledger.

(712) STOCK LEDGER.

(713) STORES LEDGER.

(*a*) A stores or stock ledger—record of goods received, issued, and balance on hand.

(*b*) A record of shares or stock issued to subscribers. (See Stock.)

(714) SUSPENSE LEDGER.

A ledger to which are transferred doubtful accounts until such time as it can be ascertained whether or not they are collectible.

A representative account entitled "Suspense Ledger Account" is carried in the general ledger, to which the amounts of accounts transferred to suspense ledger are debited, and to which are credited all sums collected in payment or part payment of such accounts.

The balance of suspense ledger account should therefore always agree with the total of the balances drawn off from the suspense ledger.

Some forms of suspense ledgers are illustrated below.

Cole & Young

FROM LEDGER..... FOLIO.....

| | |
|---|---|
| 1 Collection placed with | 9 Address |
| 2 Address | 10 Appointed |
| 3 Attorney's claim number | 11 Attorney |
| 4 See letters dated | 12 Address |
| 5 Nature of failure | 13 Claims sent to (Client or Agent / Assignee) |
| 6 Assignee | 14 Address |
| 7 Address | 15 Judgment obtained |
| 8 Referee in Bankruptcy | 16 Remarks |





SUSPENSE LEDGER.

Ledger Folio.....

| Date | | Folio | Debits | Date | | Folio | Credits |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

Particulars of security
Sent for collection to
Attorney's report

Name and address of Trustee or Receiver, etc.
Claim filed
Judgment secured
Particulars of settlement

Remarks

DOUBTFUL ACCOUNT LEDGER

NAME Ashley Walker & Co. 98

Account transferred from Ledger D Folio 86 RESIDENCE Boston, Mass.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aug | 1/94 | Mdse | | 98 | 26 | Mdse | 1/15 | Cash | 1355 00 |
| Oct | 1/94 | " | | 126 | 27 | | | | |
| Jany | 1/95 | Interest | | | 568 | | | | |

Date Debtor's correspondence closed Sept 3/94 - Dec 14/94.
Date our correspondence closed Sept 1/94 - Dec 3/94 - Jany 7/95
Mercantile Agency reports July 2/94 Dunn reports favorable. Also see report on pages 210 & 211 of Red Book
Mortgages or Liens—Names and dates thereof Chattle Mortgage filed Jany 2/95 for 1855 running 6 d. S. Emmonds
Name and address of Receiver, Assignee or Trustee C. E. Lockwood of Suffolk Receiver Feby 7/95.
Date of filing claim with him Feby 7/95 -
Our Lawyer's name and address Charles R. Seymour, 150 Broad St, Boston.
Date of placing claim in his hands Feby 11/95
Judgment obtained April 22/95.
Amount and date of settlement July 11/95 - Accepted 80% on the dollar in full settlement
Remarks Wrote our lawyer March 2/95 asking as to prospects of settlement
He replied April 9/95 stating he had been offered 70% on the dollar for a receipt in full - On April 9/95 we authorized him to accept 80% on the dollar in full settlement.

FAC SIMILE 1-2 PAGE—REDUCED

## (714A) LEDGER POSTINGS.

The copy of entries covering items and amounts from books of original entry (such as sales, purchase and cash records), to a record or other form of summary.

Under the heading of "Checking Systems" we pointed out the frequency of errors in this field of accounting work and devoted considerable attention to the best methods of preventing and promptly detecting mistakes in posting figures.

We think the following description of the adaptation of the check figure 11 to British currency may be of interest to many of our subscribers. The general explanation of the ease with which this check figure is adapted to British currency is thus presented by a mathematician:

"The check figure is obtained by an application of the theorem that where N is any number in the scale of r, and D the excess of the sum of the digits in the odd places over the sum of those in the even places, the remainder after dividing N by r + 1 is the same as the remainder on dividing D by r + 1."

Most of our subscribers, however, will probably be more interested in arithmetical than mathematical solutions and may be surprised at the facility with which British currency may be decimalized. Our first example shows how the check figure cannot be used with undecimalized currency, either by treating the £:s:d as a whole number, or footing by the ordinary denominations.

TABLE NO. 1.

| £ : s. : d. | |
|---|---|
| 497 . 13 . 9 | 19 − 14 = 5 |
| 345 . 12 . 7 | 12 − 10 = 2 |
| 618 . 9 . 2 | 16 − 10 = 6 |
| | — |
| | 13 − 11 = 2 |
| 1460 . 35 . 8 | 18 − 9 = 9 |
| 1461 . 15 . 6 | 14 − 10 = 4 |

Illustration No. 2 clearly illustrates how the check figure is obtained by adding ciphers to shillings and pence.

TABLE NO. 2.

| £ : s. : d. | |
|---|---|
| 497 . 13 . 09 | 23 − 10 = 13 − 11 = 2 |
| 345 . 12 . 07 | 17 − 5 = 12 − 11 = 1 |
| 618 . 09 . 02 | 25 − 1 = 24 − 22 = 2 |
| | — |
| | 5 |
| 1460 . 34 . 18 | 16 − 11 = 5 |

Illustration No. 3 furnishes a further proof of the accuracy of the calculations.





TABLE NO. 3.

11| 497.13.09

451937 = 2

11| 345.12.07

313746 = 1

11| 618.09.02

561900 = 2

—

5

—

11| 14603418

1327583 = 5

—

## (715) LEGACY.

A capital receipt.

## (716) LEGAL BOOK-KEEPING.

See Attorneys' Accounts.

### (717) LEGAL COSTS.

Those incurred in purchase of property, or the promotion or organization of corporations, may be capitalized, *i. e.*, added to the cost of assets purchased with capital, or carried as assets and written off gradually with other expenses of organization.

### (718) LEGAL INTEREST.

See Interest.

### (719) LEGAL TENDER.

That currency which has been made suitable by law for the purposes of a tender in the payment of debts.

In the United States the following descriptions of money are legal tender:

All the gold coins of the United States are a legal tender in all payments at their nominal value when not below the standard weight and limit of tolerance provided by law for the single piece, and when reduced in weight below such standard of tolerance, they are a legal tender at valuation in proportion to their actual weight.

Treasury notes and standard silver dollars for all payments.

Silver coins of a smaller denomination than one dollar, for all sums not exceeding ten dollars.

The minor coins—five, three, two and one-cent pieces—for all sums not exceeding twenty-five cents.

## (720) LIABILITIES.

The debts and obligations of a corporation, partnership, or merchant. That which is due or owing for value received. That liability exists without value received is true, but in these days it is difficult to recover when it can be proved that no consideration passed.

For sectionalization of liabilities see Balance Sheet.

## (721) LIFE INSURANCE ACTUARY TABLE.

The following is the Actuary Table, known as the American Experience Table:

AMERICAN EXPERIENCE TABLE OF MORTALITY.

| Age. | Number Living. | Number Dying. | Expectation of Life. | Age. | Number Living. | Number Dying. | Expectation of Life. |
|---|---|---|---|---|---|---|---|
| 10 | 100,000 | 749 | 48.72 | 53 | 66,797 | 1,091 | 18.79 |
| 11 | 99,251 | 746 | 48.08 | 54 | 65,706 | 1,143 | 18.09 |
| 12 | 98,505 | 743 | 47.45 | 55 | 64,563 | 1,199 | 17.40 |
| 13 | 97,762 | 740 | 46.80 | 56 | 63,364 | 1,260 | 16.72 |
| 14 | 97,022 | 737 | 46.16 | 57 | 62,102 | 1,325 | 16.05 |
| 15 | 96,285 | 735 | 45.50 | 58 | 60,779 | 1,394 | 15.39 |
| 16 | 95,550 | 732 | 44.85 | 59 | 59,385 | 1,468 | 14.74 |
| 17 | 94,818 | 729 | 44.19 | 60 | 57,917 | 1,546 | 14.10 |
| 18 | 94,089 | 727 | 43.53 | 61 | 56,371 | 1,628 | 13.47 |
| 19 | 93,362 | 725 | 42.87 | 62 | 54,743 | 1,713 | 12.86 |
| 20 | 92,637 | 723 | 42.20 | 63 | 53,030 | 1,800 | 12.26 |
| 21 | 91,914 | 722 | 41.53 | 64 | 51,230 | 1,889 | 11.67 |
| 22 | 91,192 | 721 | 40.85 | 65 | 49,341 | 1,980 | 11.10 |
| 23 | 90,471 | 720 | 40.17 | 66 | 47,361 | 2,070 | 10.54 |
| 24 | 89,751 | 719 | 39.49 | 67 | 45,291 | 2,158 | 10.00 |
| 25 | 89,032 | 718 | 38.81 | 68 | 43,133 | 2,243 | 9.47 |
| 26 | 88,314 | 718 | 38.12 | 69 | 40,890 | 2,321 | 8.97 |
| 27 | 87,596 | 718 | 37.43 | 70 | 38,569 | 2,391 | 8.49 |
| 28 | 86,878 | 718 | 36.73 | 71 | 36,178 | 2,448 | 8.00 |
| 29 | 86,160 | 719 | 36.03 | 72 | 33,730 | 2,487 | 7.55 |
| 30 | 85,441 | 720 | 35.33 | 73 | 31,243 | 2,505 | 7.11 |
| 31 | 84,721 | 721 | 34.63 | 74 | 28,738 | 2,501 | 6.68 |
| 32 | 84,000 | 723 | 33.92 | 75 | 26,237 | 2,476 | 6.27 |
| 33 | 83,277 | 726 | 33.21 | 76 | 23,761 | 2,431 | 5.88 |
| 34 | 82,551 | 729 | 32.50 | 77 | 21,330 | 2,369 | 5.49 |
| 35 | 81,822 | 732 | 31.78 | 78 | 18,961 | 2,291 | 5.11 |
| 36 | 81,090 | 737 | 31.07 | 79 | 16,670 | 2,196 | 4.74 |
| 37 | 80,353 | 742 | 30.35 | 80 | 14,474 | 2,091 | 4.39 |
| 38 | 79,611 | 749 | 29.62 | 81 | 12,383 | 1,964 | 4.05 |
| 39 | 78,862 | 756 | 28.90 | 82 | 10,419 | 1,816 | 3.71 |
| 40 | 78,106 | 765 | 28.18 | 83 | 8,603 | 1,648 | 3.39 |
| 41 | 77,341 | 774 | 27.45 | 84 | 6,955 | 1,470 | 3.08 |
| 42 | 76,567 | 785 | 26.72 | 85 | 5,485 | 1,292 | 2.77 |
| 43 | 75,782 | 797 | 26.00 | 86 | 4,193 | 1,114 | 2.47 |
| 44 | 74,985 | 812 | 25.27 | 87 | 3,079 | 933 | 2.18 |
| 45 | 74,173 | 828 | 25.54 | 88 | 2,146 | 744 | 1.91 |
| 46 | 73,345 | 848 | 23.81 | 89 | 1,402 | 555 | 1.66 |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 47 | 72,497 | 870 | 23.08 | 90 | 847 | 385 | 1.42 |
| 48 | 71,627 | 596 | 22.36 | 91 | 462 | 246 | 1.19 |
| 49 | 70,731 | 927 | 21.63 | 92 | 216 | 137 | .98 |
| 50 | 69,804 | 962 | 20.91 | 93 | 79 | 58 | .80 |
| 51 | 68,842 | 1,001 | 20.20 | 94 | 21 | 18 | .64 |
| 52 | 67,841 | 1,044 | 19.49 | 95 | 3 | 3 | .50 |

Insurance companies usually have several cash books, an agent's cash book, a home office cash book, a foreign cash book for receipts, and a cash paid book for expenditures, but they aim to assemble everything from cash books and journals into a General Cash-Journal provided with columns for each of the accounts carried in the general ledger. This Cash-Journal, therefore, furnishes the trial balance without posting to a ledger, but for the sake of obtaining monthly totals on each account, it is customary to close this book at the end of each month, posting the totals to the representative accounts in the general ledger.

We show illustration of a cash-journal used by a life insurance company.

## (722) LIMITED CORPORATIONS.

See Corporations.

## (723) LIMITED PARTNERSHIP.

See Partnership.

## (724) LIST PRICES.

Gross selling prices.

## (725) LITHOGRAPHING BUSINESS ACCOUNTING.

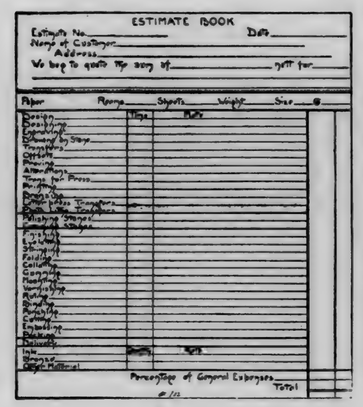
General expenses should be classified and an hourly rate set on every machine, this rate being determined by adding together all expenses which accrue to the machine during the working week or year.

The classification of general expense includes floor rent, machine rent, heat, power, light, taxes, insurance, factory, office, administrative and general expense. To the percentage of general expense set on each machine must be added the wages of press-men, feeders, tenders, etc.

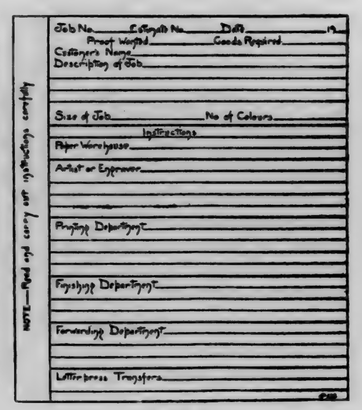
The actual rate per hour having been determined, the necessary time to print any one job may be accurately calculated.

The first essential to obtain an order is to furnish an estimate, and we show a suitable form of estimate record. This is made in duplicate, the duplicate being retained in the office for reference. It also permits comparison with the actual cost.

The order having been obtained, it is entered in the order book and at the same time a job order and instruction docket should be made out. A suitable form is a strong manilla envelope with complete instructions on one side and a detailed cost record showing time, material, etc., on the other side. (See Form 12).




FORM 1.




FORM 3.

## ORDER BOOK

| Job No. | Date Received | Customer's Name | Proof Required Date | Estimate No. | Date Required | Date Sent Out | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |

FORM 2.

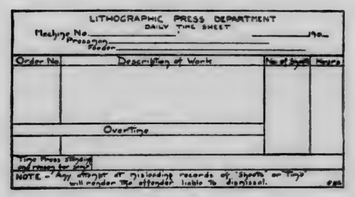
## OVERSEER'S DEPARTMENT SLIP

| Job No. | Date Received | Description | Name of Artist | Name of Transferer | Name of Pressman | Time Started | Time Finished | Total Hours | Proofs | Date Required | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

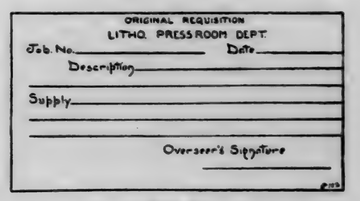
FORM 7.



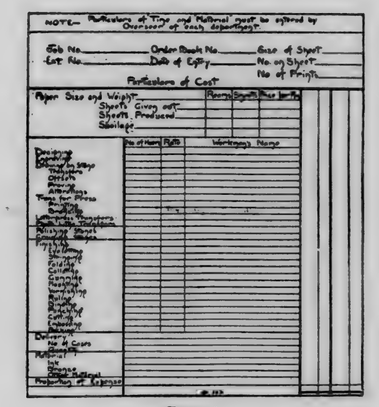





FORM 5.




FORM 6.




FORM 4.

From this instruction docket the details are copied into a cost book, or if the envelope is properly arranged the charge to the customer may be entered thereon and posting made direct to the customer's account. A daily time sheet should be issued to each workman on which the workman notes the number of his machine and the time he works on his job.

A stock record should be kept of goods purchased, withdrawn and balances on hand. The store room should be in charge of a competent employe and no goods issued except on written requisition signed by the foreman.

A department slip is useful in showing an overseer the various jobs on hand, the date they are required, etc., without looking up dockets.—*G. Low.*

### (726) LIVE STOCK COMMISSION BUSINESS ACCOUNTING.

This furnishes information for the book-keeper of a concern selling horses on commission and also dealing with mules. The following special accounts should be carried:

Mule Trading account; which is charged with all purchases of mules, also boarding expenses, and is credited with the totals of the sales of mules.

Commission on Horses; being credited with amount charged for selling horses, and fees for offering same at auctions.

Boarding or Feed account, which is debited with all payments for feed, water, etc., and credited with amount of all charges for boarding horses sold on commission and mules in stable.

Equipment Trading account; to this account all sundry articles are charged which do not belong to the Stable Equipment, but which will be disposed of when selling horses or mules, and the amount then charged for same is credited to this account.

The Expense account should be subdivided under the various headings, such as: Auctioneer, Rent and Taxes, Wages, General Expenses, Salaries, Office Expense, etc.

The preceding accounts will show the detail of revenue and expenditure peculiar to this business.

The most important record is the commission sales register which contains full particulars in connection with each sale, and is provided with the following columns:—

Entry Number
Date Horse Arrived
Name of Owner
Description of Horse
Reserve Bid
Date Offered for Sale
Sold To
Amount Sold For
Amount Paid at Sale
Balance Paid
Date Delivered

At the sales the clerk is beside the auctioneer and in this book he records the sales and cash received.

An ordinary columnar cash journal will be found useful and when remitting to the owner an account sales is made out showing charges for commission, boarding, etc.

To keep an accurate record of the cost of boarding it is necessary to have a suitable register provided with columns headed for each day in the week and a line for each stall. Each day the consignment number of the horse in each stall is entered in the register. The pages may be totaled at the end of each week and this will show the number of horses and mules which have been fed. These totals furnish the figures showing the exact cost of boarding by taking the amount of the boarding or feed account and adding the proportion of expenses.

### (727) LOAN ACCOUNT.

An account representing money invested on loans with or without collateral security.





### (728) LOCATION OF ERRORS.

See Detection of Errors.

### (729) LOGISMOGRAPHY.

A theoretical explanation of principles of accounting, based on the business being responsible to the proprietor for all its transactions.

### (730) LOOSE-LEAF RECORDS.

While loose-leaf records are not recommended for general or private ledgers, cross-entry journal or cash books, it is found desirable in many large businesses to provide separate loose-leaf cash books for customers' ledgers and assemble them in one binder and with the usual methods adopted for safeguarding, *i. e*—depositing all receipts, making all expenditures, except petty cash, by check and using the imprest petty cash system, no valid objections have been presented.

#### SOME OF THE ADVANTAGES.

The advantages of the above combination bound book-loose-leaf methods are as follows:

1. If a cashier be kept, other than the book-keeper, it becomes necessary if bound books are used, to have two cash books for alternate days, or if there are two or more branches, the business of which is combined in one set of books, as it should be, the original cash record may be sent in to the main office, if loose-leaf, avoiding the necessity of making a transcript.

2. The loose-leaf sales book enables one to make out the shipping order, the customers' invoice and the sales book record in one writing.

3. The personal accounts receivable and payable are kept under a lexicon index, enabling the book-keeper to find an account, just as he would a name in the telephone book.

4. Each sheet contains but one account and is capable of indefinite extension, thus avoiding all necessity of transfers from one part of the ledger to another with consequent re-indexing.

5. All closed and inactive accounts may be removed to an inactive binder, thus relieving the ledger of all "dead wood."

6. All the security afforded by the bound book is obtained with none of its cumbersome features.

7. The controlling accounts enable the proprietor to see at a glance the aggregate amount owed to and by him on open account, without taking a trial balance.

The system of loose-leaf record may be abused, as is shown by the following example. A large business house adopted a loose-leaf Accounts Receivable Ledger and used a large leaf providing for two separate accounts on each side of each leaf and a regular bound index was provided. The Nominal and Capital accounts were carried in the same ledger with the accounts of

customers, so that they successfully combined all the disadvantages of the bound ledger with all the objections to the loose-leaf ledger.—*S. Loog.*

## (731) LOSS AND GAIN.

See Profit and Loss.

## (732) LUMBER BUSINESS ACCOUNTING.

This is a system of book-keeping used by a lumber, salt and shingle manufacturing firm, manufacturing 1,000,000 barrels of salt, 40,000,000 feet of lumber and 60,000,000 shingles yearly. The company owns a large merchandise store, wholesale store (called department W), machine shop, two saw mills, blacksmith shop, electric plant, planing mill, shingle mill, stave mill, heading mill, salt block, cooper shop, its own railroad, car repair shop, locomotive repair shop, three logging camps, grading camps and a harness shop.

Each one of the above named departments are run by foremen who are responsible for all work turned out through their department. The foreman makes all requisitions for supplies and material of the stock-keeper, which place in this business is called department W. Requisitions are made (Form 1), which are signed by the foreman when the supplies are delivered. The stock-keeper retains the slip, from which he makes a memorandum charge to that particular department in a loose-leaf binder, the pages of which have columns ruled for each department, and each department column is subdivided into two columns, one headed supplies and the other repairs and renewals.

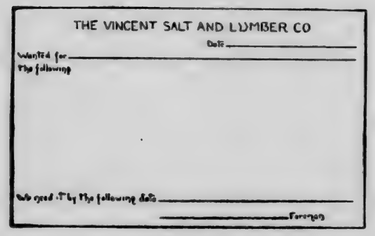
At the end of the month the pages on which the charges were made are turned into the office, and each department is charged with the supplies and repairs and renewals received, and department W is credited with the total. The same requisition slip is used when parts of machinery or other material which is not kept by department W is needed, sending them into the office, from which place the order is issued, the slip being retained to check off with the invoice when received, the invoice being O. K.'d by the foreman sending in the requisition as to quantity, quality and price.

All invoices are paid by the voucher system; vouchers are made out in duplicate; the original (Form 2), together with a check, is sent to the party from whom the purchase was made, the vouchers to be returned properly receipted, which are then filed away. The duplicate (Forms 3 and 4) is retained in the office, and, together with the invoices paid under that voucher, is filed away. The duplicate is shown obverse and reverse. All vouchers are numbered consecutively, so that quick reference may be had. The original voucher is white and the duplicate yellow. Blue vouchers are used for journal, cross and adjusting entries, so as to distinguish them from cash transactions. On the outside of the duplicate voucher the debits and credits of the transaction are recorded from which the entry is made in the voucher record.

The blue vouchers or journal vouchers are ruled and worded same as Form 3. One will notice the receipt is omitted on the duplicate voucher. The






THE VINCENT SALT AND LUMBER CO

Date

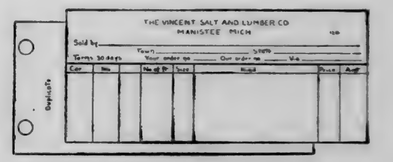
Wanted for

The following

Job oyed O.K. by the following date

Foreman

FORM 1.

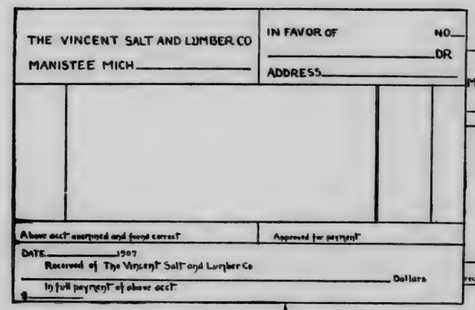

THE VINCENT SALT AND LUMBER CO
MANISTEE MICH

Sold by

Terms 30 days

Duplicate

FORM 11.


THE VINCENT SALT AND LUMBER CO
MANISTEE MICH

IN FAVOR OF NO.

DR

ADDRESS

Above acct examined and found correct

Approved for payment

DATE 1907

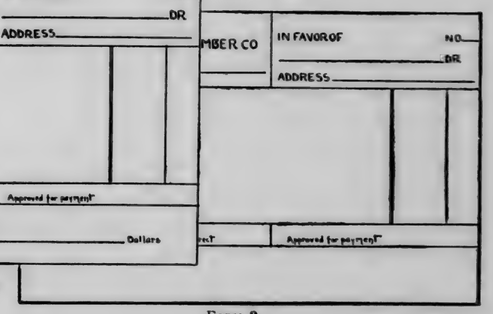
Received of The Vincent Salt and Lumber Co

Dollars

In full payment of above acct

$

FORM 2.


MBER CO

IN FAVOR OF NO.

DR

ADDRESS

Approved for payment

FORM 3.

outside of the original voucher is not ruled as duplicate voucher, as shown in Form 3. The journal vouchers are not made out in duplicate.

The vouchers are entered in the voucher record (Form 5), in numerical order, charging and crediting those accounts as indicated on the outside of duplicate voucher, which are made by the head book-keeper.

Note.—Department R is the merchandise store. Bottom of page is ruled same as left-hand page.

All vouchers are indexed in a book posted in detail. The pages of the voucher record will be in balance at any time, for the total debits must equal the total credits.

At the end of the month the footings only of the various columns are posted to the private ledger. The items in the private and general ledger columns are (Form 6) provided for that purpose. This book is divided into fourteen sections. The first section on the left is for the name of the party in whose favor the voucher was drawn. In the next column is recorded the year. The columns following are for the twelve months of the year, each column being subdivided so as to record sixteen transactions in one month by the same party. Ten pages are allowed for indexing under each letter of the alphabet.

VOUCHER NO._____

$_____

ACCOUNTS TO CHARGE

Dept. W. Purchases _____

Dept. R. _____

E. & L. R. R. _____

ACCOUNTS TO CREDIT

Vouchers Payable _____

FORM 4.

ACCOUNTS TO CHARGE

Repairs and Renewals: Mill Yard | Sawmill | Electric Power | Planing mill | Shedding

Dept. W: Freight | Purchases

Dept. R: Purchases | Equipment

Contractors | Logs Purchased | Surveys | Tel. & Tele. | Incidental Expenses | Contractors Orders

Gen. Ledger: Bill. & P.

Private Ledger: Accts.

FORM 5.

All logs are cut by its own camp and sent down to the mills over its own railroad and dumped in the log pond. The railroad is known as the E. & L. R. R., and being quite a large one, separate books are kept for this department. The logs are scaled in the woods, the scabs recording number of logs and board feet are sent to the office on the last of the month, and entered in the log record book. At the end of every week, scabs, showing the number of logs cut and number of feet sawed by both mills, are sent to the office, and are entered in the log record book. The total logs sent down by the camp, and the total logs sawed can thus be ascertained and a good check kept on same.

When an order for lumber is received, an acknowledgment of it (Form 10) is filled out, which is signed by both parties. They are made out in duplicate, each retaining one. They specify the kind of lumber and number of feet contracted for, and at what price. Shingle orders are acknowledged on same blanks. When lumber is shipped, the lumber tally sheet is sent to the office, from which the invoices are made and sent to the customer. Invoices (Form





ACCOUNTS TO CREDIT | ACCOUNTS TO CHARGE

Date | Vo. No. | In favor of | Particulars | ✓ | Bill fo. | Private Ledger | Gen'l L. | Dept. W | Dept. R | Dis. on Pur. | Voucher Payable | Repairs and Renewals: Old M. | New M. | Stove M. | Camper | Boilers | Pur. Blk. | Carpenter

Brot. Fwd.

Brot. Fwd.

Postings

FORM 5A.

11) are made out in duplicate, the original is sent to the customer, and the duplicate is retained in the office, it being filed in an invoice binder. Each invoice is numbered consecutively, so that quick reference may be had. The postings are made from the invoice in the invoice binder to the customer's account in the general ledger. At the end of every month the invoices are filed on a larger file, large enough to hold invoices covering one year's business. Only the current month's invoices are kept on the smaller file, making it much easier to handle.

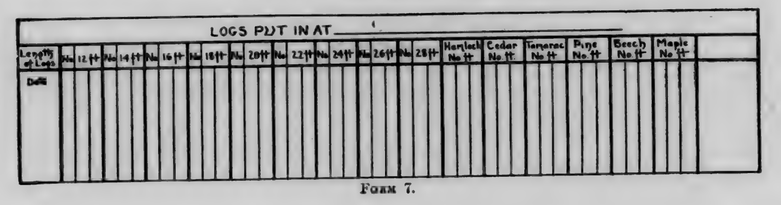
Each invoice is entered in the Sales Summary (Form 12), recording the date, number of invoice, total number of feet and selling price. Columns are provided for each kind of lumber, salt and shingle sales, so that at the end of the month a perfect record is obtained of the number of feet sold and amount realized of the various kinds. The total of the various columns will agree with the footings of the totals column. The footings only of the various columns are posted to the credit of their respective account in the private ledger.

As the orders for lumber are generally large ones, several shipments must be made, and at different times, before the order is filled. The following (Form 13) is the card on which is recorded order number, name of customer, manner of shipments, date, number of feet and amount. Each shipment made is recorded on the card bearing the same order number. In doing this, it can be quickly ascertained the number of feet shipped on an order. They are filed alphabetically, the name of customer governing.

VOUCHER INDEX

| Drawn in favor of | Year | January | | February | | March | | April | May |
|---|---|---|---|---|---|---|---|---|---|
| | 1906 | 457 | | | | | | | |
| | 1907 | 1145 | 12.00 | | | | | | |
| J. R. Abbott | | | | | | | | | |

FORM 6.




FORM 7.

The salt shipments are invoiced and entered in the sales summary, same as lumber sales. The book (Form 14) is used to record the number of barrels and tons shipped of each kind of salt.

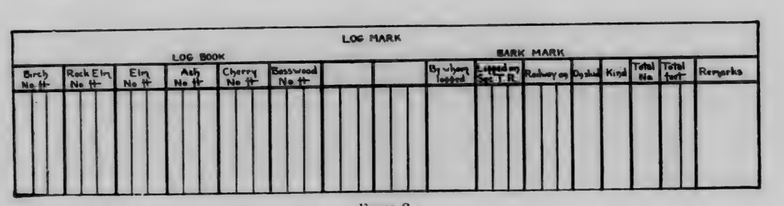
A petty cash book is used to record cash sales. The foreman making the sale, enters the particulars of the sale and amount in the above named book, and signs his name to it. This is verified by the cashier, who also signs his name to it for a receipt of the money. From time to time the cashier credits the various kinds of sales in the cash book (Form 15. L. H.), and checks them off the petty cash book (Form 15. R. H.) as having been entered. An ordinary single entry journal is used as petty cash book.

A check register (Form 16), is used to record all checks issued.

Each and every morning the cashier is requested to draw off a cash statement, recording the amount of money on hand in the various banks (Form 17), and in the drawer, and checks drawn on banks during the previous day. An account is kept in the general ledger with the E. & L. R. R. in which is recorded all transactions during the month and from which account the entries are transferred to the various accounts in the E. & L. R. R. books. Entries are also made direct from the check books of the E. & L. R. R. These transactions are not entered in the check register.

An account with the proprietor is kept in like manner, first posting to his account in the general ledger (Form 18), and then transferring them to his private books, also making direct entries from his private check books.

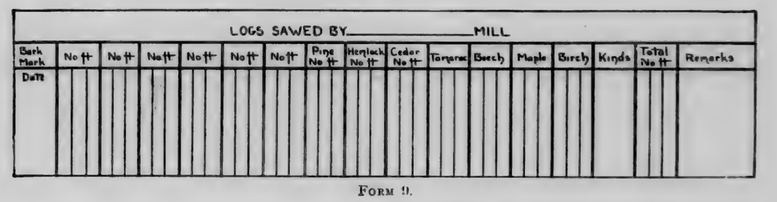
The foreman of each department keeps the time of the employes, using the ordinary pocket time book, which is left at the office each day and from which the pay roll clerk copies the time and rate in the general pay roll book, the amount of the wages of each department is charged to wage account to that department.



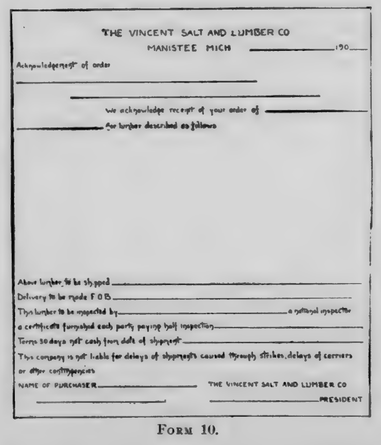

FORM 8.



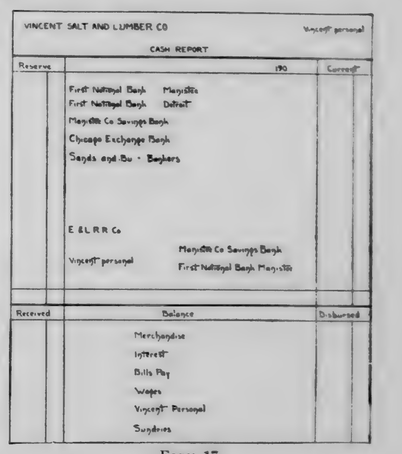




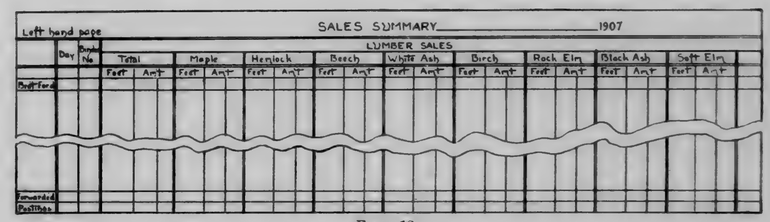

FORM 9.



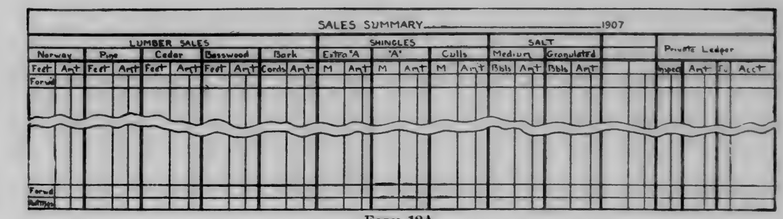

FORM 10.




FORM 17.




FORM 12.




FORM 12A.

NAME
Round & timber shipped ADDRESS
Order No

| Shipped from | Date | Kind | Feet | Amount |
|---|---|---|---|---|
| | | | | |

FORM 13.

SALT SHIPPING BOOK — THE VINCENT SALT AND LUMBER CO

| Date | Car Initial | Car Number | Name of Boat | Destination | Consignee | Gran Bbls | Med Bbls | Gran Bbls | Med Bbls | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

FORM 14.

Right hand page — CASH RECEIVED BOOK

RECEIPTS FOR _____ 190_

| PARTICULARS | Ldr Cash Sales | | General Ledger F & L R R | General Ledger Sundries | PRIVATE LEDGER Fo | PRIVATE LEDGER ✓ | PRIVATE LEDGER Accounts |
|---|---|---|---|---|---|---|---|
| Amts Brot Fwd | | | | | | | |
| Amts Forwarded | | | | | | | |
| Postings | | | | | | | |

FORM 15.

Left hand page — CASH RECEIVED BOOK

THE VINCENT SALT AND LUMBER CO

| ACCOUNTS TO CHARGE: Private Ledger Accounts | Fo | ✓ | Accounts | Discount on Sales | RECEIPTS AND DISBURSEMENTS DAY: Cash Received | Bank Deposits | Daily Cash Balance | From whom |
|---|---|---|---|---|---|---|---|---|
| Amts Brot Fwd | | | | | | | | |
| Amts Forwarded | | | | | | | | |
| Postings | | | | | | | | |

FORM 15A.





| ACCOUNTS TO CREDIT: Private Ledger Amount | ✓ | Fo | Accounts | General Ledger | FIRST NATIONAL DETROIT Deposit Amount | Deposit Ch No | Wd/Drawals Amt | Daily Balance | MANISTEE SAVINGS BANK Deposit Amount | Deposit Ch No | Wd/Drawals Amt | Daily Balance | CHICAGO EXCHANGE Deposit Amount | Deposit Ch No | Wd/Drawals Amt | Daily Balance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | |

FORM 16.

A separate pay roll book is kept for the E. & L. R. R., the total of which is charged to E. & L. R. R. wages account.

The merchandise store is charged with all purchases and expenses and credited with all sales. A statement is sent to the general office at the end of

| FIRST NATIONAL BANK: Deposit Amount | Ch No | Amt | Daily Balance | Dep | VINCENT SALT & LUMBER CO DISBURSEMENTS FOR: Payable to order of | Particulars | Voucher Check | Inf Credit | Wages | Camp Supplies | Camp Orders | ACCOUNTS TO CHARGE: General Ledger E L & R | Private Ledger Acct | Fo | ✓ | Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | |

FORM 16A.

each month containing all transactions not yet recorded in the general books. The difference between the debit and credit sides together with inventory will indicate whether it is run at a loss or gain.

THE VINCENT SALT AND LUMBER CO
NAME
ADDRESS

| DATE | MEMO | Fo | ✓ | DEBITS | CREDITS | ✓ | Fo | MEMO | DATE | BALANCE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

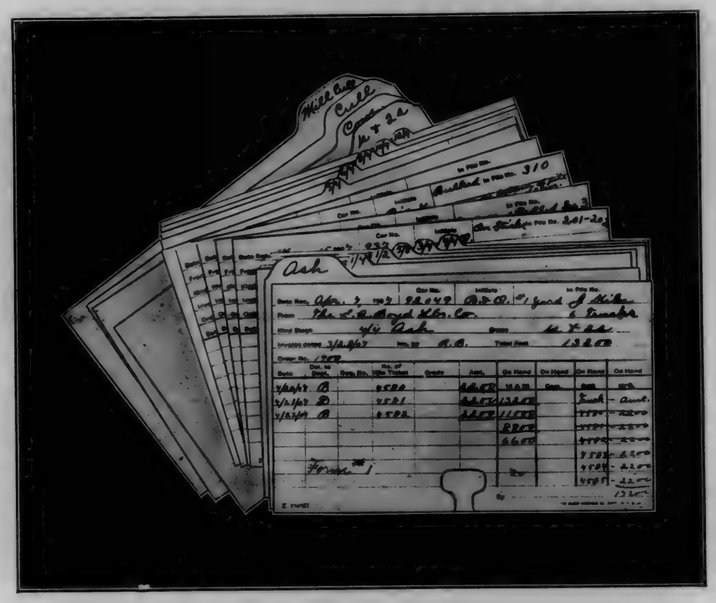
FORM 18.

The private ledger (Form 19), contains all accounts excepting accounts with customers, such as capital, investment accounts, office salaries, accounts with the different departments of the business and accounts showing profit and loss. The general ledger contains only customer accounts, the loose leaf system being used.—*W. A. H. Steffens.*

The following system has been used in a large factory for five years and found very satisfactory. This factory has four large mill rooms which cut an average of one million feet of lumber per month. This lumber is delivered to each of these departments by the truck load and each department is charged daily for the lumber used.

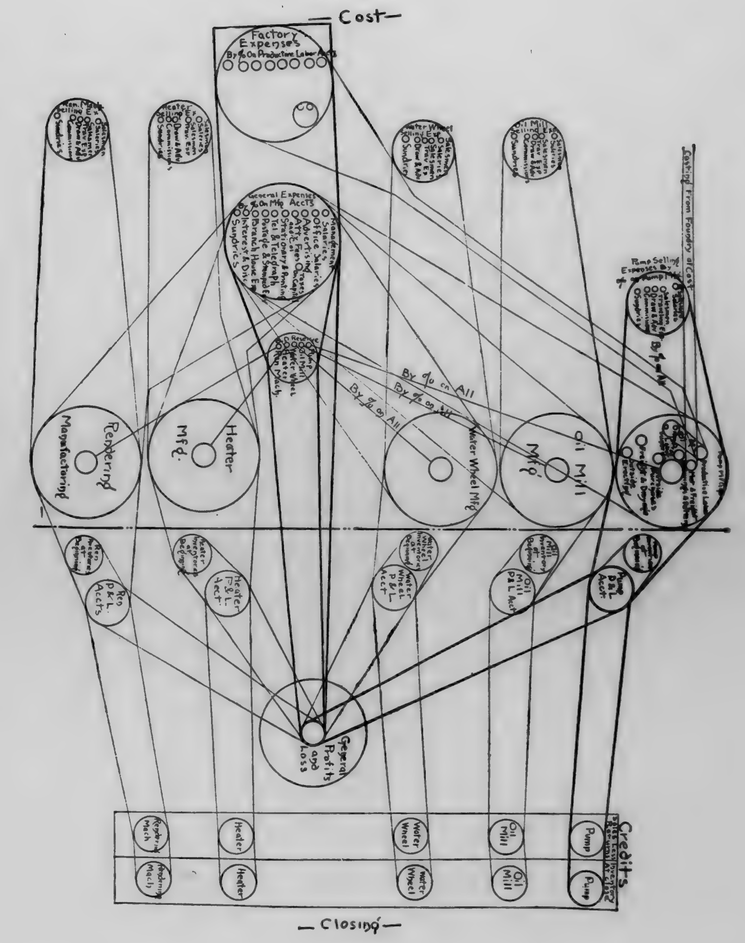
When a car of lumber is unloaded it is entered on a small yellow card, showing date received; car initial; who from; location in yard; and everything pertaining to that car. It is also entered on a large white card, (only date, car number and amount being necessary in this case, as this card acts as a Controlling account to the small card which is the individual car account).

There are two yards, two large sheds, two large coolers into which the trucks of lumber are run after they come out of the kiln, and eleven dry kilns. Everything in the way of piles, bins, kilns and tracks are numbered. The yard is laid off in eight rows and spaced for six foot piles. The pile numbers in the first row run from one to one hundred, the second row from 101 to 200 and so on.

When the trucks are ready to go in the kiln a tag is filled out and tacked on, which shows the date; kiln; track number; car number; and amount. This

(733) LUMBER INVENTORY.







tag has a coupon attached which is filled out and is numbered the same as the main tag. This coupon is detached and entered in the kiln book, which is numbered consecutively, each coupon being entered opposite that certain number.

When a truck load of lumber is delivered from the kiln to the mill the tag is pulled off the truck. The department that received it is marked on the back and it is turned in to the clerk who has charge of the yard records.

Every morning these tags are entered in the "Delivery Book" and checked off of the "Kiln Book." By looking at the "Kiln Book" we can always tell just what is in each kiln and how long it has been in the kiln. By entering the Truck No. and amount out of the "Kiln Book" onto the small card for that certain car, as shown on Car 92,049, 4-4 Ash 1s and 2s, as submitted herewith, and checking off when delivered, we can always tell what portion of that car is in the yard, in the kiln, or been delivered, by looking at the card.

From the "Delivery Book" the charges are made to the cards—the items to the small cards, or car accounts, and the total amount of each kind of lumber to the department accounts on the large cards.

At the end of each month the large cards are ruled up, and from these cards we take the monthly report which shows the amount on hand April 1st, the amount received during April, the amount delivered in April and the amount on hand May 1st. A copy of this report is sent to the purchasing agent and this report guides him in his purchases.

### (734) RETAIL LUMBER BUSINESS ACCOUNTING.

Retail Lumber with Branches.

Each branch will make detailed daily reports to main office. All books are kept at the main office, and all financial business, excepting current receipts, is done at the main office.

Forms will, therefore, be provided for daily report under the heading of Cypress, Pine, Gum, Cedar, Shingles, Lath, etc.

Form 1A illustrates report of all sales of cypress lumber, cash or credit. These reports are made in duplicate, carbon copy being retained by the branch. The other forms of report are made up in the same manner.

The stock report at the bottom of the sheet affords the main office a perpetual inventory of each item of lumber carried in the several branches. One or two items of stock in each yard should be verified by actual count often enough to prove that the reports are as near accurate as possible.

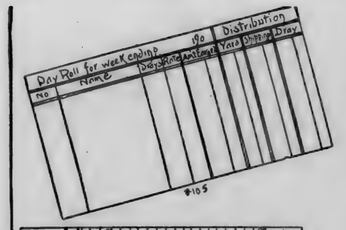
Each branch would keep a petty cash account, and expenditures of this nature should be reported weekly to the main office. See form 1H.

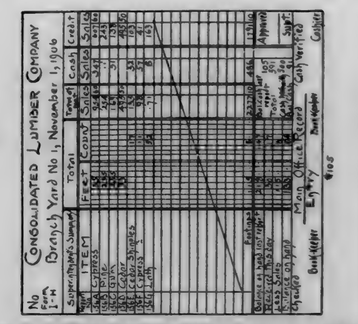
Form 1, cash received on account, is a report of receipts to be forwarded each day to main office accompanied by cash to balance, as indicated.

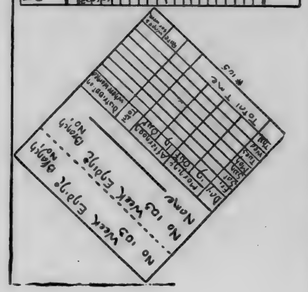
Form 2, main office recapitulation of sales, is ruled to accommodate a record of fifteen branches, using one line a day. This recapitulation affords record of number of feet or count of each item sold each day, amounts of same, number or count sold of each branch with amounts, together with total



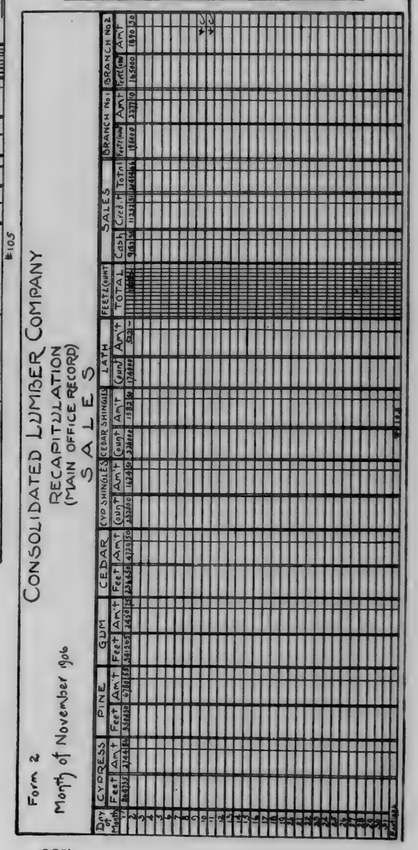


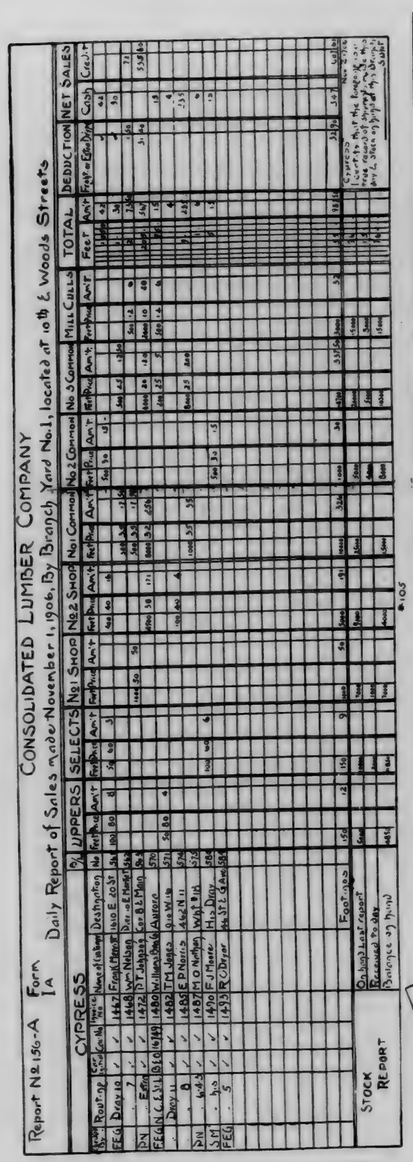

Pay Roll for week ending 190
No. Name Days Worked Rate per Day Amount Distribution Yard Dept. Dray
$105


CONSOLIDATED LUMBER COMPANY
No. from 1-W Branch Yard No 1, November 1, 1906
Item Total Feet Credit Total Cash Credit Cash Sales Credit Sales
Superintendent's Journal
Delivery Book
Kiln Book
Office Record
Daily Report
Ledger
Invoice Book
Cash Book
Bank Book
Pay Roll
Stock Report
Shipping Bill
Bill of Lading
Time Book
Journal
Voucher Register
Check Book
Trial Balance
Balance Sheet
Profit and Loss
Statement
Main Office Records
Branch Yard Records
Cash Vouchers
Subject
Purchases
Sales
Expenses
Assets
Liabilities
Capital
Surplus
Profit and Loss
Bank Account
Cash Account
Petty Cash
Accounts Payable
Accounts Receivable
Notes Payable
Notes Receivable
Real Estate
Mortgages
Interest
Discount
Exchange
Commission
Brokerage
Freight
Cartage
Storage
Insurance
Taxes
Rent
Wages
Salaries
Office Expense
Yard Expense
Mill Expense
Repairs
Depreciation
Bad Debts
Contingencies
Dividends
Reserve
Net Worth
Net Profit
Net Loss
Gross Profit
Gross Loss
Total Assets
Total Liabilities
Total Capital
Total Surplus
Total Profit
Total Loss
Total Sales
Total Purchases
Total Expenses
Total Receipts
Total Disbursements
Total Cash
Total Credit
Total Debit
Total Balance
Total Discount
Total Interest
Total Exchange
Total Commission
Total Brokerage
Total Freight
Total Cartage
Total Storage
Total Insurance
Total Taxes
Total Rent
Total Wages
Total Salaries
Total Office Expense
Total Yard Expense
Total Mill Expense
Total Repairs
Total Depreciation
Total Bad Debts
Total Contingencies
Total Dividends
Total Reserve
Total Net Worth
Total Net Profit
Total Net Loss
Total Gross Profit
Total Gross Loss
$105

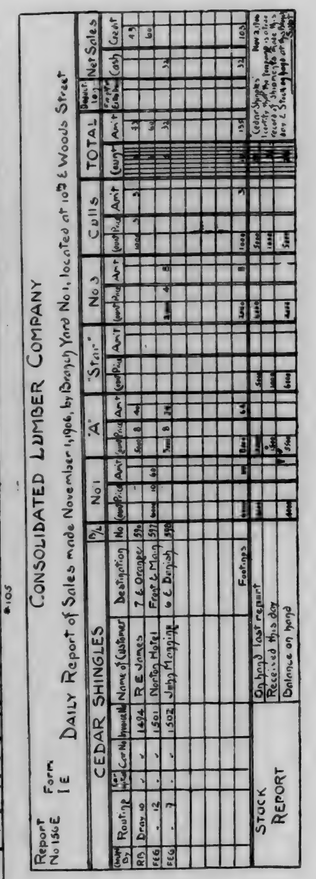

CONSOLIDATED LUMBER COMPANY
Report No 136 D Form 1D
DAILY Report of Sales made November
CEDAR
STOCK REPORT
$105


No Week ending Nov 10
No Week ending Nov 17
No Week ending Nov 24
No Week ending Nov 31


CONSOLIDATED LUMBER COMPANY
RECAPITULATION
(MAIN OFFICE RECORD)
SALES
Form 2
Month of November 1906
CYPRESS PINE GUM CEDAR CYP. SHINGLES CEDAR SHINGLES LATH BRANCH No. 1 BRANCH No. 2
Day of Month Feet Amt Feet Amt Feet Amt Feet Amt Count Amt Count Amt Count Amt Feet Amt Feet Amt
TOTAL
$105

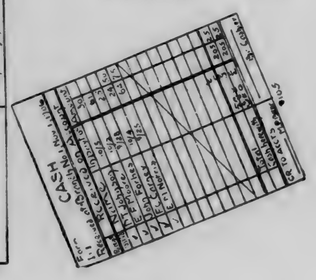

CONSOLIDATED LUMBER COMPANY

Report No. 150-A Form 1A Daily Report of Sales made November 1, 1906, by Branch Yard No. 1, located at 10th & Woods Streets


CONSOLIDATED LUMBER COMPANY

Report No. 150-E Form 1E Daily Report of Sales made November 1, 1906, by Branch Yard No. 1, located at 10th & Woods Street

CEDAR SHINGLES


CASH





of all sales in feet, amount of cash sales, amount of sales on credit, and total sales. Only one recapitulation sheet is required for month.

Forms 3 and 4, pay roll and workmen's check and time slip, are made weekly; the time check is detached at docket line, the numbered end going to workmen; the other portion is kept by foremen of yard who fills in time each morning and afternoon. The week is understood to end on Thursday and men paid on Saturday. The workmen receipt time checks on the back of being paid.

When reports from branches are received by main office, cash will be charged with amount of cash sales, and sales account credited; customers charged with purchases on account, and sales account credited; as it will not be necessary to post each branch's sales daily, the recapitulation affording this information. If at the end of the month it is desired to wipe out the general sales account entry would be made in the journal, charging general sales account and crediting each branch with its sales for the month.—*J. T. Ruark.*

## (735) MAIL ORDER BUSINESS METHODS.

Good management requires a few rules, but their enforcement is variable.

1. Fill all orders promptly—the same day as received, if possible.
2. Fill all orders accurately. Ask customers to make a second and third choice.
3. Give mail order customers full benefit of to-day's prices.
4. Return all money sent in excess of purchase. It saves book-keeping expense.
5. Have each assistant through whose hands an order passes, put his or her stamp on it. You can then place the blame in case of error.
6. Keep an indexed list of all orders, shipments and customers.
7. Notify customers of the manner in which, and the date on which shipments are made.
8. Make good any unsatisfactory purchase that you would make to an over-the-counter customer.
9. In all advertising matter sent out quote prices and give the amount of postage, expressage or freight charges.
10. Give a set of these rules to each employe in your mail order department, and see that he lives up to them.

One way to cultivate a successful mail order business is to take a small area of territory and work it thoroughly. To take a large territory and try to reach everyone at once is a waste of money. The best plan is to concentrate effort and repeat it.

It is necessary to keep a record of prospective customers, as well as a record of transactions, and the best method yet devised is the card index.

If several states are to be circularized classify the card index by states and counties.

Circularize prospects regularly and persistently. Spasmodic circularizing is usually a waste of money.

For convenient and efficient follow-up records see card systems.

INQUIRY CARD **No. 138**

| NAME | TOWN | COUNTY | STATE |
|---|---|---|---|
| WANTS | | | |
| BUSINESS | RATING | REFERS TO | DATE OF INQUIRY |
| KIND OF CAT. SENT | CIRCULAR SENT | KIND OF QUOTATION SHEET SENT | |
| WHOSE TY | TRAVELER ADVISED | CALLED | |
| WRITTEN TO | GENERAL CORRESPONDENCE | CORRESPONDENCE REC'D | |
| | | | |
| | | | |
| QUOTED | TERMS | DELIVERY | SOLD |
| | | | |
| | | | |
| REMARKS | | | |

In some cases it will be considered sufficient to classify a state instead of the cities of a state. For state and city cards different colors should be used.

The cards for recording results should contain information as follows:—

Source from which list of prospective customers has been obtained.

Price paid for same.

Territory covered.

Number of letter. Each letter should bear a number to facilitate future reference.

Dates of letters sent to prospective customers.

Record of replies received.

Cost of each series of letters to prospective customers.

Total cost of complete series.

INQUIRY

| NO. MATERIAL | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INQUIRY REC'D FROM FOR | | | | | | | | | | | | | |
| ADDRESS | | | | | | | | | | | | | |
| F.O.B. DESCRIPTION | PARTIES WRITTEN | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |





Record of orders received in response to letters.

Record of indirect orders which cannot be traced to letters.

General remarks.

## (736) MANIFEST.

An invoice, this term being commonly used in connection with imported goods, in regard to which there are certain legal requirements to be complied with, as follows:

1. That all invoices of imported merchandise shall be made out in the currency of the place or country from whence the importations shall be made, or if purchased in the currency actually paid therefor, shall contain a correct description of such merchandise, etc.

2. That all such invoices, shall at or before the shipment of the merchandise be produced to the consul, vice-consul, or commercial agent of the United States of the consular district in which the merchandise was manufactured or purchased as the case may be, for export to the United States, and shall have indorsed thereon, when so produced, a declaration signed by the purchaser, manufacturer, owner, or agent, setting forth that the invoice is in all respects correct and true, and was made at the place from which the merchandise is to be exported to the United States; that it contains, if the merchandise is to be obtained by purchase, a true and full statement of the time when, the place where, the person from whom the same was purchased, and the actual cost thereof, and of all charges thereon, as provided by this act; and that no discounts, bounties, or drawbacks are contained in the invoice, but such as have been actually allowed thereon, etc.

3. That no different invoice of the merchandise mentioned in the invoice so produced has been or will be furnished to any one.

A way bill, giving itemized description of goods shipped over railroads, one copy of which accompanies the shipment, the other being forwarded to the general office.

## (737) MANUFACTURING ACCOUNTS AND COST RECORDS.

There is no recognized universal system of shop accounting and those interested should therefore study the best points in all systems which may be brought to their notice.

The following program is intended to apply in an ordinary way to any of following shops:

Machine
Boiler
Blacksmith
Pipe
Carpenter
Pattern
Car Repairs

SHOP ORDER

Date _____ 190__ S.S. Order No. _____

Deliver Material To _____

Charge _____

Description _____

Operation for _____ Shop _____

Operation for _____ Shop _____

Operation for _____ Shop _____

Operation for _____ Shop _____

Pattern Number _____ Drawing Number _____

Number of Pieces _____ Number Finished _____

Deliveries made _____

Remarks _____

| DEPARTMENTS | TIME | | MAT'L | PROV. FOR SHOP | | MISC. | TOTAL |
|---|---|---|---|---|---|---|---|
| | Hours | Amount | Amount | Per Cent | Amount | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Date Invoiced _____ Total Invoice _____

(REVERSE SIDE)

| MATERIAL USED | | | | | MATERIAL RETURNED | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Kind | Price | Stock On Hand | From Stores | Scrap | Kind | Price | Stock On Hand | To Store | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Totals | | | | | | | | | |

Disposition of unused material not returned to stores

LABOR

| Name of Workman | Hours | Rate | Amount | Remarks |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Requisitions for work to be done by the shops may originate from any part of the plant, but should be sent direct to the office of the superintendent of shops. This office is the central office through which all shop orders will pass. There should be a clerk in each shop to be held accountable for correct records for all accounting matters pertaining to his shop. When the central clerk in the





office of the superintendent of shops receives a requisition he should be so familiar with shop operations as to be able to issue a shop order (Form 1), otherwise the superintendent of shops would lose valuable time giving instructions.

If the requisition requires work to be done by several shops before it is finished, the central clerk makes one original, and a carbon copy for each of the shops affected. It will be noted that as the original order shows each shop, and describes the nature of work to be done, so the carbon copy will show the same. This will enable each shop clerk to hold his order to await the arrival of material from another shop, and, besides giving instructions for work to be done in his department, will inform him what he is to do when his shop has completed its part of the work. The order being made out, the original is retained by the central clerk, and the carbons distributed to the respective shop clerks. The shop clerk keeps the orders properly filed for quick reference for the shop foreman. Every workman will be provided with a job ticket, which is given him each morning by the shop clerk and returned to the shop clerk before leaving at night. These tickets should be printed on the front side showing order number, kind of work engaged upon, when commenced, when left off.

On the reverse side will be shown the various materials used, to be inserted at the time deliveries are made to the workmen, for account of the job. Whenever any part of such material is not used it should be returned to the store-keeper, or any other disposal reported to shop clerk. The shop may carry certain supplies on hand; get some material from the store-keeper to apply directly on jobs and may work up certain scrap or unused material. The shop order provides for this information on its reverse side. A workman needing material for a job, gets a store requisition from the shop clerk, which will show the number of order it applies against. The workman takes two copies of a requisition to the store-keeper, gets his material and receipts for it, the store-keeper pricing one copy which is returned to the shop clerk for record. At the end of the month the store-keeper's summary of issues against this department is sent to the auditor and the shop clerk makes his report of supplies received which should correspond with the store-keeper's report. Realizing this check the shop clerk and store-keeper generally compare notes before reports are sent in.

We are assuming that the storehouse is centrally located so that materials can be had quickly by any of the shops, and thus save each shop from carrying a large stock of supplies. No matter how convenient the storehouse may be it will be found to advantage for each shop to carry a certain amount of supplies that are constantly in use, and in such cases an inventory account will be carried on the shop ledger as supplies on hand. The shop clerk should be particular to see that all receipts from the store-keeper, where such materials go into the stock are charged to stock on hand and not against job orders because he must report all materials used from this stock. Unused or scrap materials will be taken care of.

In charging supplies to a shop order number where they have been received from store-keeper, the entire bill will be charged to shop orders. If the unused

portion is of any consequence, it should be returned to store and credit received. If the shortage is small the shop orders must stand it.

Now we have arranged it so the foreman of the shop can make a showing for himself. All labor and material that is accounted for on shop orders will be charged to shop orders account on the manufacturing ledger. All labor and material that cannot be applied on shop orders will be charged to shop expense account. This account is classified into as many divisions as will be found to advantage, and will be represented by account numbers. The foreman knows his idle time, or time he cannot sell, is an important point to look after, he therefore endeavors to work on to each job as much of this as possible, but he must not take too much risk, because the inspection should prevent this; since every completed order should be O. K'd. by the superintendent of shops, and as every move made during the process of the order is clearly noted on the orders, showing the workman's name, his time put on the work, amount of material used, etc. If this idle time is overlooked, comparison with the records on a repeat order would cause trouble, if there is much difference. So as shop expense is the figure to be reduced we allow the foreman to show what scrap he uses which will apply against his shop expense. He must show this correctly, because there is a check against materials from store applying on shop orders, and his materials on hand would develop a shortage upon verifying inventory. As soon as the shop clerk completes an order, he records a full history of it in a book provided for that purpose, which will be explained later on.

The time of shop workmen is kept by the shop clerk from his job tickets, but generally a regular shop time-keeper, who goes around to all the shops, takes the time also, and comparison is made before the pay roll is made up. When the shop clerk gets all information required on a completed order, he sends it to the central clerk, who in turn attaches it to his original order, and holds it until all departments have been heard from and the article delivered, then the original order is ready for invoicing.

Up to this point we must consider what the shops do with their products, whether used for supplying other departments of the company, or for outsiders. This will be necessary to know at this point, because the invoicing would change to meet these conditions, for instance, we have the exact labor and material and other charges on a certain order direct, but there is the shop expense to be considered.

We are possibly just starting the system and have no true basis of arriving at this expense, we therefore fix a certain per cent that we would consider fair, which we set up on the manufacturing ledger as provision for shops. As mentioned above the shop order is ready except the expense, which we now add per percentage agreed upon. The total charges now represent the exact cost of operation as near as we can get at it, as shop expense covers all items of repairs, maintenance, and depreciation. If the article delivered goes into another part of the plant, we want the exact cost to follow, as we do not desire to make a profit on ourselves. If the article goes outside there will be a fixed price for the work or recognized per cent added for profit.





The form of invoicing changes here to meet these conditions. For deliveries on the plant a memorandum invoice may be used, on which it would be well that the cost of the article be shown, an invoice delivered to foreman of the department for approval, as to price charged, and receipt of article, and this bill sent to the auditor for record. For deliveries outside a different invoice can be used, which would not contain as much information as deliveries within the plant. The central clerk reporting to the auditor at the end of the month for completed orders on deliveries made, shows shop department's actual time which agrees with pay roll, actual supplies used, whether credit be given store, stock on hand, or unused material and percentage for shop expense, and profit on outside work. Shop orders account will be charged with labor appearing on job ticket which apply on shop orders only, also supplies used on shop orders as reported by shop clerk.

Credit to this account will be made from report of central clerk for completed orders invoiced. Balance of this account represents orders in process and is carried as an asset. Having an acount with each shop it can be verified by checking over shop orders in hands of shop clerk which should show every day's time and material charged on each order. Shop expense will be closed into provision for shops account. The latter should about balance, and if there is too much discrepancy, adjustment in percentage can be made until an approximate balance is reached.

In many manufacturing plants where the shops are used for the benefit of the plant, it is sometimes the rule to ascertain the entire labor of the shops according to the pay roll, and after adding supplies delivered, regardless of inventory of what materials may be on hand, to take the total expense and distribute it over the several producing departments of the plant on a percentage basis, thus entirely wiping out shop expense.

After a department receives its percentage distribution, the amount must be further distributed over the several cost sheets for articles that department produces. This action causes trouble when comparisons are made monthly. and to a greater extent, when comparing between a competitor's cost and your own, when you are endeavoring to locate the weak points. The department costs should be chargeable each month with only what materials have been received, and the plan outlined here will do it. The former method always permitted a loophole for a foreman to crawl out of when brought to task for his high costs, while the latter shows his true operations; gives him an opportunity to complain of excessive charges for work performed by the shops, by appealing to the superintendent, the latter being in position immediately to trace every movement through the shop process and correct his charge if necessary.

### ABOUT DEFECTIVE WORK.

Defective castings or other parts can be rejected by superintendents and the amount charged back to the shop. There should be an account number given defective work under shop expense, the amount increasing the expense, and at

the same time bringing these complaints promptly to the superintendent. A shop foreman does not want to increase his expense and will try to prevent many charges against this account, especially when he knows they will be seen. While this system is beneficial to a department superintendent, it is equally so to the shop foreman, who has an opportunity to make a good showing for himself. His shop expense must be decreased if possible, and he therefore will strive hard to get the best results out of his men, so his idle time will decrease, by working his men on as many shop orders as possible, also by working up his unused material and reduce his purchases from the store. A foreman can call upon a workman at any time, and ask to see his job tickets to ascertain whether he is employed upon a job order and if so whether he is really working on that particular order.

Foundry is not classified among the shop group, but at the same time it is considered to the extent that castings would start from the foundry, therefore the shop order would go to the foundry as well as to other shops affected by the order. On account of the foundry being in the class of producing departments, it will have its own clerk and accounting records, which will not fit in with the shop plan. Foundry costs being generally ascertained each month, it will readily be seen that it would be almost impossible to get daily costs for shop work turned out; therefore, as soon as deliveries are made the shop order is sent to the central clerk, who has been given an arbitrary price to use for the month, generally based on previous month's costs. It stands in the same relation to shops as the storehouse, which sells its goods for a price, and so does the foundry.

In order to keep the accounting process in one channel which always prevents more or less complication, there are many instances where materials produced on the plant are used by the shops, who could order them from the department direct; but in such cases it has been found better to order all supplies through the store-keeper. The store-keeper is receiving goods from all sources, and his records are provided to take care of it, while with a shop it is much better to check supplies received through one channel.

A shop order may call for quite a number of pieces, and in the process it may be an advantage to pass a portion of them along to the next shop as soon as finished, and not wait for completion of the order, which would help the next shop to keep busy. For such cases there should be provided a transient order with practically the same information as the shop order, except at the bottom a space should be provided for:

PARTIAL DELIVERIES.

Name of article .....
Received by .....
Final receipt .....

This is held and attached to shop order, held by shop clerk until the last delivery is made, when this blank is receipted opposite final receipt, attached to shop order and sent to central clerk.





Each shop clerk keeps a general account, the balance of which represents his jobs in process. He must have a balance to start with, which is obtained by ascertaining the amount of jobs in process the first of the month and starting job orders for same. If all labor and material charged against these jobs were charged off the previous month, then no further record need be taken, only for such labor and material charged after the system was placed in operation. To this balance the shop clerk adds, per his monthly report to the auditor, supplies received from store-keeper and charged on his job orders; supplies used from stock on hand in shop; material used out of scrap; labor per his pay roll distribution, and any miscellaneous charges that may appear. He credits this account with amount of completed orders sent to the central clerk, being a summary of his daily reports. An account will be kept with the central clerk, who is charged with the completed orders from each shop and credited with the invoicing to departments and outsiders. The balance represents the amount of process work in his hands.

The shop clerk also keeps an account with the inventory of supplies on hand, and any other special account pertaining to work done in his particular shop. He also keeps an expense account of his shop, and for such entries as do not originate in his shop, debit or credit memos. may be sent to him by the auditor. This will help to get a quick check on all accounts promptly at end of the month. We have endeavored to show here that every report is counter checked by another, and it has been proven that where this check exists, employes usually verify their work several times during the month, as otherwise many errors being made would have tendency to injure their reputation.

The shop clerk also keeps a record of his job orders received as follows:

JOB ORDER RECORD.

The orders are written in this record as soon as received from the central clerk numerically, but as these numbers do not run consecutively, the shop may use its own number also, although this has not been found to be of any great advantage. As soon as an order is completed and delivered the order is sent to the central clerk and, as explained before, all detailed information being in same, the shop clerk enters the results in his job record. All entries open show jobs in process, for which job orders should be in his hands. This can be verified by the auditor's representative at any time.

As previously explained, there will be an account kept with shop expense and provision for each shop. The percentage agreed upon to cover shop expense, will be used in creating the provision for shop account by computing it upon the basis of labor charged to job orders for the month. This amount will be charged to provision for shop and credited to shop expense.

It will now be seen each month whether the percentage used is sufficient to cover the shop expense, and if not, the rate should be changed until it does. This change should not be made except at the first of the month.

Provision for shop account is now an asset, showing that this provision is tied up in process work, and will receive credit as soon as work is completed

and invoiced. After credit has been given for completed work each month, the balance can be verified with the amount of labor noted on process order in hands of shop clerks, and each shop's completed orders in hands of central clerk not invoiced. If the rate is changed this balance must be adjusted between shop expense and provision for shops, and all invoicing must take the new rate from the first of the month.

We have now covered the process of accounting matters through the shops in a general way, omitting many minor details, essential in order to have such a system work smoothly, which all depends upon the conditions surrounding the plant. The system for time-keeping, office records, filing of orders in central clerk's office for quick reference in comparing costs, etc., can all be adjusted to meet the conditions and peculiarity of those in charge.

In the construction of an accounting system, especially with large plants, one should endeavor to avoid complication, and have perfect freedom in action. Every avenue should work as independently as possible, but all tend to one central point. The plan should not admit of the possibility of one employe stopping the entire machinery, or several employes being obliged to wait upon one. If every move is independent, the work progresses rapidly, and in the event of weakness the remedy can be applied without injury to the whole system.

The system outlined here may not be adjusted to every condition, but it is now in successful operation, and some of its features may appeal to those having unsatisfactory results at the present time, and be of benefit to those who at some future time may have occasion to deal with the subject.

## (738) POINTERS FOR THE COST ACCOUNTANT.

The cost ledger should be sectionalized, one section designed to show any detailed charges to the power, light, rent, tool, sundry and fixed charges accounts The second section shows the labor, material and expense charged on jobs.

The stores room ledger is, of course, a separate record provided for a perpetual inventory of raw material, supplies and tools and finished goods.

Forms of production orders, requisitions for supplies, perpetual inventories, time tickets, tool cards, etc., are generally arranged on the same order with variations according to the particular conditions of the business.

Comparative statements of the charges to the various expense accounts can be made quarterly which will show just where the increase or decrease in expenses lies. By this method facts are ascertained which make it possible to scientifically reduce costs of manufacture. Only as a cost system aids in lowering costs of production so that selling prices can be intelligently fixed to meet competition is it justified in deserving adoption. That the system herein outlined contains the essential principles of a cost system adapted to a manufacturing works has been proven by a thorough test.





| | | Table 1. | Table 2. | | | Table 1. | Table 2. |
|---|---|---|---|---|---|---|---|
| Nominal Life. | Working Life. | Rate on Original Cost or Values. | Rate on Diminishing Values. | Nominal Life. | Working Life. | Rate on Original Cost or Values. | Rate on Diminishing Values. |
| Years. | Years. | Per cent. | Per cent. | Years. | Years. | Per cent. | Per cent. |
| 100 | 90 | 1 | 2·526 | 12·5 | 11·25 | 8 | 18·508 |
| 80 | 72 | 1¼ | 3·147 | 11·764 | 10·588 | 8½ | 19·455 |
| 66·6̇ | 60 | 1½ | 3·765 | 11·1 | 10 | 9 | 20·560 |
| 57·142 | 51·427 | 1¾ | 4·379 | 10 | 9 | 10 | 22·574 |
| 50 | 45 | 2 | 4·988 | 9·0̇9̇ | 8·1̇8̇ | 11 | 24·530 |
| 44·4 | 40 | 2¼ | 5·590 | 8·3̇ | 7·5 | 12 | 26·436 |
| 40 | 36 | 2½ | 6·196 | 8 | 7·2 | 12½ | 27·371 |
| 36·36 | 32·724 | 2¾ | 6·794 | 7·692 | 6·923 | 13 | 28·294 |
| 33·3̇ | 30 | 3 | 7·388 | 7·143 | 6·428 | 14 | 30·107 |
| 30·769 | 27·692 | 3¼ | 7·979 | 6·6̇ | 6 | 15 | 31·871 |
| 28·571 | 25·714 | 3½ | 8·565 | 6·25 | 5·625 | 16 | 33·592 |
| 26·6̇ | 24 | 3¾ | 9·148 | 5·882 | 5·294 | 17 | 35.270 |
| 25 | 22·5 | 4 | 9·728 | 5·714 | 5·143 | 17½ | 36·091 |
| 23·529 | 21·176 | 4¼ | 10·303 | 5·5 | 5 | 18 | 36·900 |
| 22·25 | 20 | 4½ | 10·873 | 5·263 | 4·736 | 19 | 38·503 |
| 20 | 18 | 5 | 12·008 | 5 | 4·5 | 20 | 40·052 |
| 18·1̇8̇ | 16·363 | 5½ | 13·126 | 4·762 | 4·286 | 21 | 41·564 |
| 16·6̇ | 15 | 6 | 14·230 | 4·54 | 4·091 | 22 | 43·041 |
| 15·384 | 13·846 | 6½ | 15·321 | 4·348 | 3·913 | 23 | 44·481 |
| 14·286 | 12·857 | 7 | 16·397 | 4·16 | 3·750 | 24 | 45·883 |
| 13·3 | 12 | 7½ | 17·460 | 4 | 3·600 | 25 | 47·250 |

**The residual value under both tables is exactly 10 per cent.**

RECIATION TABLES.

## (739) CLASSIFICATION OF PLANT CHARGES.

The proper classification of the charges to the plant accounts is recognized as of considerable importance in a system of factory cost accounting. Values

of a tangible nature, grounds, buildings, permanent fixtures, machinery, small tools, patterns and shop fixtures come under this head. The distinction between the plant accounts is oftentimes a very fine one, and great care must be exercised when classifying the entries to these accounts. Depreciation and the disposition of any expense which may be incurred in connection with an article are the factors which largely determine its classification. Since these factors vary it is impossible to give any concise definition without a long list of exceptions.

### (740) FACTORY DEPRECIATION.

The depreciation accounts are best treated as reserves and are originated by journal entries. The consensus of opinion of factory accountants is that it is the best practice to write off depreciation on diminishing values after taking into account the longevity and obsolescence of various parts of the plant. This method always leaves a residual value and provides for writing off more depreciation at the beginning of the life of the plant than at the end.

### (741) FACTORY CAPACITY.

Danger of wasted labor and material are known and the importance of safeguards against such waste is pretty generally appreciated. All this is to be remembered when we come to the accounting for factory capacity. Conditions existing in relation to the economical utilization of labor are intensified in relation to the economical utilization of factory capacity. In regard to the last standards of economy are less simple, are less generally appreciated, and less strictly enforced. Between the means ordinarily used in business management and in cost accounts to watch the utilization of factory capacity and to deal with it in the cost accounts, and a strict accounting for factory capacity there is the same distinction that exists between estimates and strict accounts for material and labor, that is, the strict accounting furnishes means of control which the other does not.

It is to show exactly what factory capacity is utilized and what the resulting loss is, that the accounting for factory capacity is set up.

### (742) FACTORY EXPENSE.

In one large manufacturing establishment there are 48 manufacturing departments and 37 distinctive classes of machines used in the varied operations which result in a monthly output of 2,000 finished appliances. In this establishment the factory expense is divided into four main classes as follows:

1. Machine expense is expense incurred in the regular manufacture of goods.

2. Special department expense is expense incurred in connection with special manufacture of such a nature as to require or warrant special investigation of a routine nature, different methods of disposing of burden in costs, etc.





Drawing No. Pattern No. Material
Article No. 153½
Operation No. Name
Estimated time required

| Order No. | Material Reg. No. | No. Pieces | Machine No. | Name of Man | Time Hours | Time Minutes | Rate Per Hr. | Labor Cost | Per Cent. & Efficiency |
|---|---|---|---|---|---|---|---|---|---|
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MACHINE RECORD.

3. Material expense is expense incurred in connection with purchasing, handling and storing material both raw and in the process of manufacture.

4. Store expense is expense incurred by the shop organization on account of the store as merchandise drafting, etc., which is transferred periodically to store expense.

The hand book of shop expense classifications gives a complete list of classifications and the grouping of them.

### (743) MANIFOLD SHOP ORDERS.

The sets of blanks here shown constitute an invoice or bill, an office record and charge sheet, a stock-keeper's order, a packer's order, an acknowledgment of order, a packer's report, a cost record sheet and a provision for a copy of the packer's report on the back of one of the sheets.

All seven sheets are written at one insertion in the cylinder typewriter (with an extra long carriage) with a sheet of carbon paper between each two successive sheets.

### (745) FACTORY STOCK RECORDS.

For all ordinary stocks of goods and for factories especially, the card shown in Form 1 will answer the requirements. It will be noticed that one card is used for each article in stock, and these cards are filed between guide cards on which are written the indexes separating the different classes of material. The cards of a given class are arranged according to the name of the article, the size or the stock number, as may best meet the requirements of the business.

COST SHEET
Order No. ___ File No. ___
Order Dated
Ship When
Via
Salesman
Sold to
Ship to
Ship with this
Quantity | No. & Desc. | Dept. ... Materials | Labor | Dept. ... Materials | Labor | Dept. ... Materials | Labor | Total Cost | % Labor and Gen'l Exp. | % Admin. & Selling Exp. | Total Cost and Distribution

Screen Order Instructions
Packer's Report
Ship with this
✓ | ✓ | Crate No. | Contents | Weights

Screen Order Set Instructions
Acknowledgment of Order
Your Req. No. ___
KOSTER MANUFACTURING CO.
INDIANAPOLIS
Packer's Order

Screen Order Instructions
Order No. ___ File No. ___
Order Dated
Ship When

Screen Order Instructions
Stock Keeper's Order

Screen Order Set Instructions
Office Record
Folio ___
Invoice
Terms Invariably
Shipped to
This invoice, when due, is subject to sight draft without notice

✓ | Quantity | Stock No. | Finish | Frame or Filled | Color of Filling | Price | Amount

MANIFOLD SHOP ORDER.





PURCHASE REQUISITION
Date ___ No. ___
To the Purchasing Dept.
Please order the following goods to be shipped
Date Ordered ___ Signed ___
Price ___ Approved ___
Terms ___
Form 1

STOCK REQUISITION
Date ___ Req. No. ___
To Storekeeper By ___ Dept. No.
Foreman
Material | Quan. | Price | Amount | L. F.
Form 3

Material ___ Grade ___ Size ___ Part No. ___
Min. Stock ___ Max. Stock ___ Bin ___ Drawing No. ___

RECEIVED | DISBURSEMENTS | BALANCE
Date | Quan. | Price | Amt. | P.R.
Form 2

Report of Finished Parts delivered to Stock
Date ___
To Cost Dept.
We have received this day the following finished parts
Storekeeper
Quan. | Part No. | Description | Order No. | Unit Price | Amt. | L.F.
Form 4

Date of Order ___ Order No. ___
Model ___ Piece No. ___ Drawing ___ Routing
Material ___ Dept. ___

Material | Labor Dissection | SUMMARY
Date | Req. No. | Item | Amt. | Dept. ... Date | Labor | Over | Dept. ... Date | Labor | Over | Dept. ... Date | Labor | Over
Material Issued
C.I.
Material Ret'd.
Transp.
To Orders
Total Material
Labor
Overhead
Misc. Credits
Net Cost
per ___ pcs.
Cost per Unit
Form 5

Employee's Weekly Time Card
Date ___ Emp. No. ___
Name ___ Dept. No. ___
Monday | In | Out | In | Out
Tuesday
Wednesday
Thursday
Friday
Saturday
Form 6

Employee's Job Time Card
Date ___ Emp. No. ___

Sheet No. ___ Dept. No. ___ Date ___
Emp. No. | Production | Construction | Dept't | Deductions
No. | Hrs. | Amt. | Hrs. | Amt. | Hrs. | Amt. | Advances | Hrs. | Amount | Net
Form 8

Keep this card with work
WORK TICKET
Charge time to Order No.
To Foreman, Dept. No. ___ Date ___ Emp. No. ___
Please execute the following and return at once to Inspection Dept.
Begun | Quit | Begun | Quit
Total Hours
Form 7

Quan. | Piece Nos. | Mod. No. | Description
Operation

Dept. No. ___ Order No. ___
Operation
No. Pcs.

Date of Order ___ Order No. ___
Model ___ Piece No. ___ Drawing No. ___ Routing
Material ___ Dept. ___

Inspector's Report
No. pcs. recd ___
No. pcs. rejected ___ stock defective ___ labor ___
No. pcs. ret'd for repairs ___
No. pcs. accepted ___
Date ___ Inspector
Form 9

PROGRESS IN FACTORY
Dept. No. ___ | Dept. No. ___ | Dept. No. ___ | Dept. No. ___
Oper. | Date | Out | In
PCS. DISCARDED
Dept. No. | Pcs.
Form 10

DEPARTMENTAL ACCOUNT NO. ___
Dr. Cr.
Memo. of Productive Labor Hrs. | Amount | Date | Particulars | L.F. | Unprod. Labor | Dept. Supplies | Services by other Depts. | Repairs Maintenance of Funds | Gen. Works Exp. Taxes, etc. | Sundries | Total | Balance | Date | Particulars | P.R. | Amt.
For.

SAMPLE MANUFACTURING FORMS.

## (744) COST CARDS.

SAMPLE NO. _____

STYLE SELLS AT $

| DESCRIPTION OF UPPERS | | DESCRIPTION OF UPPERS | | LABOR | |
|---|---|---|---|---|---|
| Upper Leather | | Bro't forward | | Cutting Uppers | |
| Vamps | Quarters | Buckles | | " Linings & Trim | |
| Tops | Foxing | Laces or Ribbons | | Marking Linings | |
| Laps | Tips | | | Stock Fitting | |
| Backstraps | | | | Fitting Room | |
| | | | | Bottoming Room | |
| Oxf. Tongues | Lace Stay | | | Shipping Room | |
| Lining Vamp | Lining | Total | | Foreman, etc. | |
| Interlining | Butt. Lining | BOTTOM STOCK | | TOTAL COST | |
| Facing Lining | Tongue Lining | Outsoles | | Uppers | |
| Button Stay | Goring | Insoles | | Bottom Stock | |
| Cloth Top | Crimping | Counters | | Thread & Findings | |
| Sock Lining | | Heels | | Cartons Cases | |
| | | Top Pieces | | Com, Disc. | |
| Eyelets | | Sole Lea. Boxes | | Loss and Depreciat'n | |
| Buttons | | Turn Shanks | | Expense Office | |
| Silk & Thread | | Welting | | Expense Factory | |
| Web | | Cork Filling | | Lasts and Patterns | |
| Binding Bows | | Total | | Total | |
| Carried forward | | | | | |
| Total | | | | | |

MANUFACTURE OF SHOES.

| STUDS FROM NO. | | TO NO. | | PER GROSS SET OF 3 | |
|---|---|---|---|---|---|
| MOVEMENTS | | | | AMOUNT FORWARD | |
| BRASS | | | | SETTING STONE | |
| BRASS TUBE | | | | SETTINGS | |
| PLATE | | | | BURNISHING | |
| PIPE | | | | POLISHING | |
| FRONTS | BRASS PLATE | | | COLORING | |
| BACKS READY TO ROLL | BRASS PLATE | | | | |
| STONE | | | | | |
| ROLLING IN | | | | | |
| | | | | TOTAL | |





| COLLAR BUTTONS FROM NO. | | | TO NO. | PER GROSS | |
|---|---|---|---|---|---|
| POSTS READY | | | AMOUNT FORWARD | | |
| FOR TOP | | | PEARL | | |
| TOPS | BRASS PLATE | | STONE | | |
| CUT AND DRAW TOP | | | SWEDGING IN PEARL | | |
| SPRINGS | BRASS PLATE | | | | |
| ROLL ON TOP | | | | | |
| POLISH | | | | | |
| SHADE | | | | | |
| SHOE | | | | | |
| | | | TOTAL | | |

MANUFACTURE OF COLLAR BUTTONS AND STUDS (2).

COST ORDER No. DATE FOR No. 146½

NUMBER AND DIMENSIONS OF ARTICLES

STEEL IRON LBS. @ ¢ -- % = STOCK $

| | WORKM'S NUMBER | TIME | RATE | LABOR COST | LABOR % | FACTORY COST | SUMMARY |
|---|---|---|---|---|---|---|---|
| FORGING | | | | | | | FACTORY COST |
| FORGING | | | | | | | EXPENSE % |
| ANNEALING | | | | | | | COST |
| PRESS WORK | | | | | | | PROFIT % |
| EMERY WORK | | | | | | | SELLING PRICE |
| HARD'G TEMP'G | | | | | | | |
| HARD'G TEMP'G | | | | | | | |
| STRAIGHTENING | | | | | | | |
| STRAIGHTENING | | | | | | | |
| RAGE | | | | | | | |
| FACE | | | | | | | |
| BEVEL | | | | | | | |
| POLISH | | | | | | | |
| DRILL | | | | | | | |
| LATHE | | | | | | | |
| PLANER | | | | | | | FIGURED |
| VISE | | | | | | | |
| TEMPLET | | | | | | | |
| | | | | | | | |
| | | | | | STOCK | | COST |

TOOL MANUFACTURING COSTS.

PENDING

FILE No. 187½

| | DESIGN MADE | SENT | RET'D | ESTIMATES |
|---|---|---|---|---|
| NAME | | | | |
| ADDRESS | | | | |
| | | | | |
| SALESMAN SHIPPER | | | | |

ARTICLE PROMISED

WOOD FINISH

ORDERED OF DATE SOLD FOR

| C.S. | F.S. | T.S. | U.S. |
|---|---|---|---|
| | | | |
| DETAIL MADE | DETAIL DELIVER'D | WORK INSPECTED | WORK SHIPPED |
| | | | |

REMARKS

CAB.

FINISH

TRIM

UPH.

PRIME COST

FURNITURE MANUFACTURING COSTS.

Referring to the form on the card, across the top we find the name of the article, the size or kind, the location (meaning its location in the storeroom), and at the extreme right, three spaces for high, normal and low limits. For every item in stock, it is advisable to establish a limit above which the stock should not be allowed to go without being given special attention; also a low limit which may also be termed "the danger limit." Between these two will be the normal quantity of stock.

By merely watching these limits, when goods are taken from the storeroom, the stock-keeper can keep in pretty close touch with the general condition of the stock, but the use of movable metal markers or tabs in connection with the card will automatically indicate when an item reaches the danger limit, be it either high or low. When the stock reaches the high limit, a black tab will be placed over the word "high." If this stock moves rapidly, bringing the amount below the high limit, the tab will be moved along to the word "normal." If, by chance, the stock reaches the low limit before a new supply is received, the black tab will be replaced with a red tab or signal placed over the word "low." The manager or purchasing agent by merely glancing over the files once a day will at once have his attention called to the items which need looking after by the position of these tabs.





ORDER NO. 1000

FOR COMMENCED FINISHED 2

| MATERIAL | | | | | | LABOR | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ITEMS | SIZE | QUANTY | RATE | AMOUNT | | OPERATIONS | HRS. | RATE | AMOUNT | |
| | | | | | | | | | | |
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| | | TOTAL | | | | | TOTAL | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MATERIAL | | | AMOUNT OF ORDER | | | | REMARKS |
| PROFIT % | | | COST MATERIAL | | | | |
| TOTAL | | | COST LABOR | | | | |
| LABOR | | | TOTAL | | | | |
| FACTORY BURDEN % | | | OFFICE BURDEN % | | | | CASTING WEIGHT |
| TOTAL | | | PROFIT | | | | |

Another stock card which is especially adapted to the needs of a manufacturing plant, and in which castings or other parts are received in the rough and afterwards finished, is shown in Form 2. It will be noted that on one side of this card is combined a record of rough stores, a record of finished stores and a record of the parts used and for what purpose or on what order number they have been used. This form possesses some features, the value of which will be recognized by any manufacturer having need for such records.

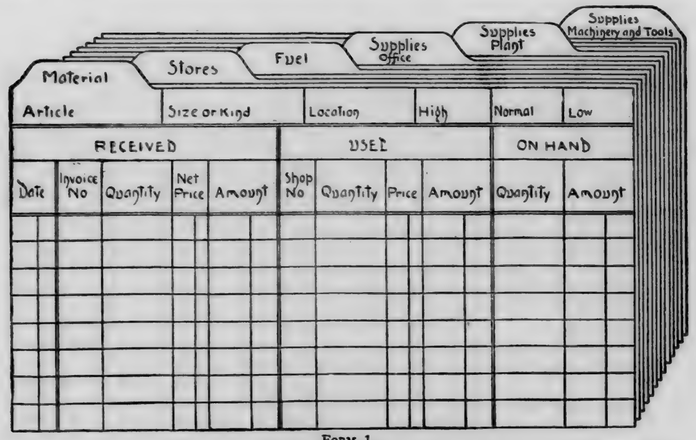
### (746) FACTORY PAY-ROLL.

This article introduces a pay-roll form of loose-leaf system to record labor of a factory having several departments, where part are paid weekly and part monthly, by check payment, on one bank account.

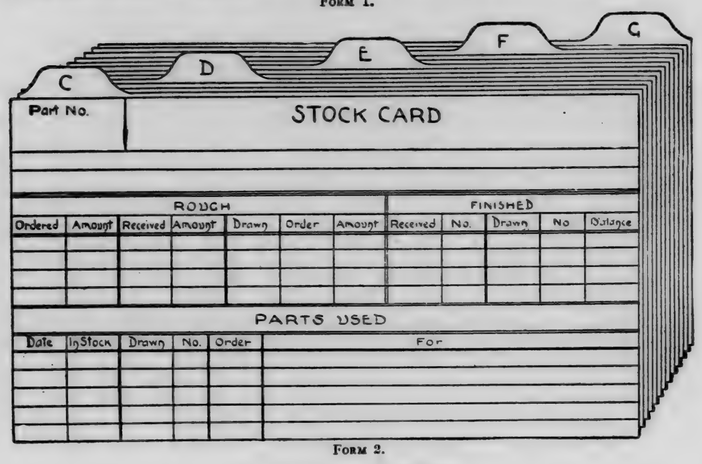
The method in vogue of registering time, whether by brass check, clock dial or factory ticket is immaterial, as it is at once transcribed on this final sheet in exact hours and totaled according to agreement of payment.

The date line is to be filled in form of calendar month or printed in standard dates one to 31 to suit the requirements of the business as to the cost system; should the calendar style be used and the end of the month be divided, a check can be issued for full payment, and recorded in two amounts.

Weekly totals are added and carried to the total paid weekly column and subdivided into the departments represented.




FORM 1.




FORM 2.

FACTORY STOCK RECORDS.

Seven units are drafted for each week so as to provide for extra time. No other record of the amount of the check issued is necessary, but simply place a check mark after the item drawn and total each column, after which add the checks drawn together, and if they balance it is an evidence of correctness.

When it is necessary to draw checks at irregular times, place the amount in red ink and adjust this on your bank record.

This form only requires the writing of names once a month, and as





Pay Roll for Month of May 1907

| Name | No. | 7/8 | 8– | 9 | 10 | 11 | 12 | Total | Rate | Amount | 1 | 2 | 3 | 4 | 5 | Total | Rate | Amount | 7 | 8 | 9 | 10 | 11 | Total | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| John Brown | 206 | 10 | 9 | 10 | 8 | 10 | 9 | 56 | 1.50 | 8 40 | 10 | 10 | 9 | 9 | 10 | 58 | 1.50 | 8 70 | 10 | 10 | 9 | 9 | 10 | 58 | 1.50 | 8 70 |
| Edw. Hyke | 207 | 10 | 10 | 10 | 10 | 10 | 10 | 60 | | | 10 | 10 | 10 | 10 | 10 | 60 | | | 10 | 10 | 10 | 10 | 10 | 60 | | |
| C.H. Coleman | 208 | 7 | 8 | 6 | 10 | 9 | 10 | 52 | 1.50 | 7 80 | 7 | 8 | 6 | 10 | 9 | 52 | 1.50 | 7 80 | 7 | 8 | 6 | 10 | 9 | 52 | 1.50 | 7 80 |
| Dave Kennedy | 209 | 10 | 10 | 10 | 10 | 10 | 10 | 60 | | | 10 | 10 | 10 | 10 | 10 | 60 | | | 10 | 10 | 10 | 10 | 10 | 60 | | |
| Chas. Thompson | 210 | | | | 9 | 9 | | 18 | 1.00 | 1 80 | 9 | 9 | 9 | 9 | 9 | 55 | 1.00 | 5 50 | 9 | 9 | 9 | 9 | 9 | 55 | 1.00 | 5 50 |
| | | | | | | | | | | 18 00 | | | | | | | | 22 00 | | | | | | | | 22 00 |

Pay Roll for Month of May 1907

| 20 | 21 | 22 | 23 | 24 | 25 | Total | Rate | Amount | 26 | 28 | 29 | 30 | 31 | Total | Rate | Amount | Amt. Paid Monthly | Total Paid Weekly | Dept. A. | Dept. B. | Dept. C. | Dept. D. | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 10 | 9 | 9 | 10 | 10 | 58 | 1.50 | 8 70 | 10 | 10 | 9 | 9 | 10 | 48 | 1.50 | 7 20 | | 41 70 | | | 41 70 | | |
| 10 | 10 | 10 | 10 | 10 | 10 | 60 | | | 10 | 10 | 10 | 10 | 10 | 290 | 1.50 | | 43 50 | | 43 50 | | | | |
| 9 | 8 | 6 | 10 | 9 | 10 | 52 | 1.50 | 7 80 | 9 | 8 | 6 | 10 | 9 | 42 | 1.50 | 6 30 | | 37 50 | | 30 50 | | 7 00 | |
| 10 | 10 | 10 | 10 | 10 | 10 | 60 | | | 10 | 10 | 10 | 10 | 10 | 290 | 1.75 | | 50 75 | | | | | 22 50 | Resigned 5/31 |
| 9 | 9 | 9 | 9 | 10 | 9 | 55 | 1.00 | 5 50 | 9 | 9 | 9 | 9 | 10 | 46 | 1.00 | 4 60 | | 22 90 | | | | | |
| | | | | | | | | 22 00 | | | | | | | | 18 10 | 84 25 | 102 10 | 43 50 | 30 50 | 41 70 | 29 90 | |

FACTORY PAY ROLL.

both names and numbers change so often in the ordinary factory, it is a very satisfactory period. The forms are held in post binder, locked securely, and when old are transferred.—*R. V. Sewell.*

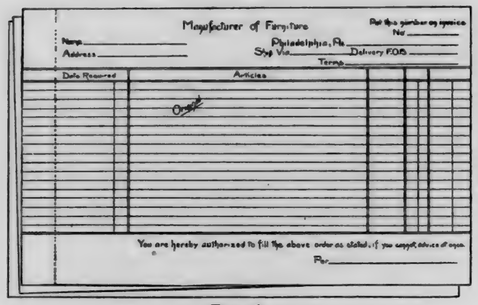
## (746A) MANUFACTURING SYSTEM FOR FURNITURE

PURCHASE ORDER.

This order should be filled out in accordance with particulars called for on Form 1, which is made in triplicate. The original of blue bond paper should be sent to the individual or company from whom the goods are ordered; the duplicate of pink bond paper should be sent to the accounting department and held on file until the invoice is received and attached to material received sheet duplicate in accordance with Form 2; the triplicate should remain in the purchasing department files for reference and record.

MATERIAL RECEIVED SHEET.

When the goods are received this form should be filled out by receiving clerk, using indelible pencil for original and carbon paper for duplicate. The

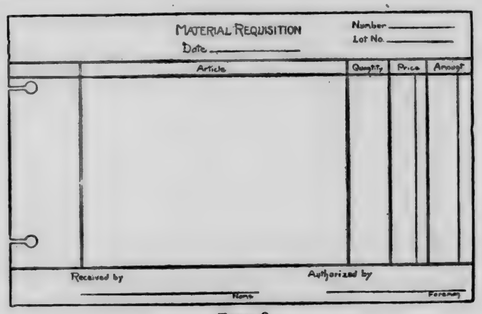



FORM 1.

original and duplicate should be sent to the accounting department. The duplicate should be attached to the Purchase Order, Form 1, and the original should be filed numerically after being priced. The receiving clerk should sign sheet, stating the date goods were received. The date of invoice should also appear on this sheet as well as the Purchase Order number, and the party entering same in Raw Material Stock Ledger should sign initials and folio number in place provided for same. To distinguish original and duplicate apart, the original should be printed on yellow bond paper and the duplicate on white bond, which should be padded and punched for binding on post binder.

MATERIAL REQUISITION.

When material is required, for orders going through the shop, the foreman should authorize the stock clerk to deliver the articles required to the operating department on this requisition, and to save time each department

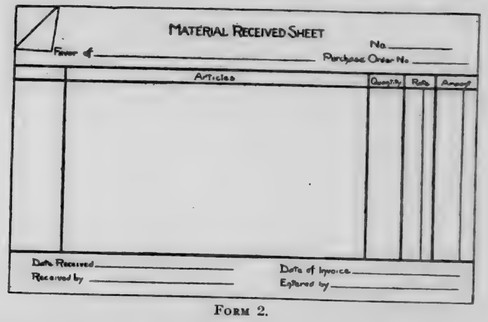



FORM 3.





should draw their supplies for each day's work between the hours of 7 to 9 a. m. The requisition should be signed by foreman, as well as by the party receiving the goods, which would in most cases be a sub-foreman

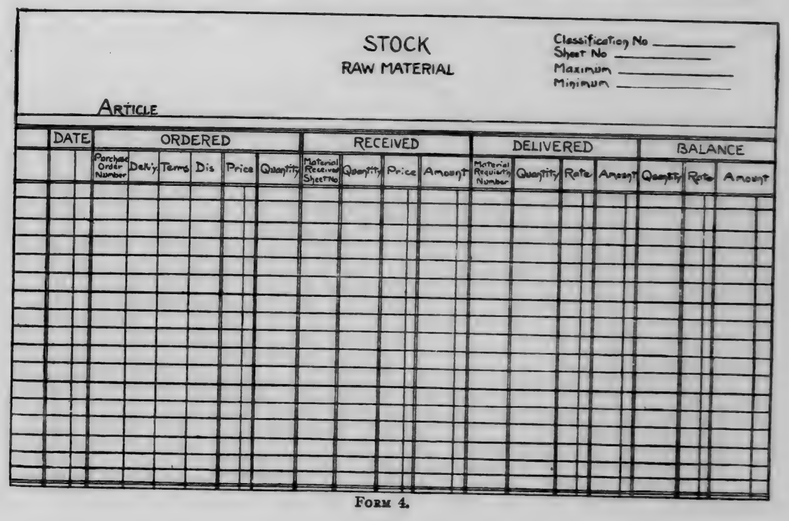



FORM 2.

of some certain department. At the end of the day the stock clerk should hand into the office all requisitions, and no material should be delivered to operators unless authorized by the superintendent or foreman. This requisition should be filed numerically in a binder provided for that purpose.

STOCK SHEET (RAW MATERIAL).

This should be kept on the lose-leaf ledger plan. A separate sheet should be used for each article of raw material, such as the different sizes,




FORM 4.

TIME CARD

Check No. _____ Name _____

Helpers Ck No. _____ Date _____

| HOURS From | HOURS To | HOURS Total | Machine or Dept. | Style No. | Finish | Quanity | Lot No. | Workman not to use these columns: Mechanic Rate | Mechanic Amt. | Helper Rate | Helper Amt. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
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FORM 5.

kinds and grades of lumber, screws, glue, and, in fact, all material used in the course of Furniture Manufacturing, including all supplies used in taking care of machinery, etc. In the upper left hand corner are the words "Classification Number," "Sheet Number," "Maximum" and "Minimum." "Classification Number" refers to the classification of the material in numerical order in stockroom. "Sheet Number," the number of sheet of classified stock kept in stock ledger. "Maximum" and "Minimum" refers to the quantity of each article to be carried in stock, and is intended to regulate purchases. For instance, after one or two months' operation of the system you can judge from the quantities used "generally," how much you should carry in stock to meet the demands of your factory.

The information called for under caption "Ordered" can be obtained from the Purchase Order, Form 1, handed into accounting department daily, and the information called for under this caption should be posted daily.

The information called for under caption "Received" can be obtained from Material Received Sheets, Form 2, which should be entered daily.

The information called for under caption "Delivered" can be obtained from the Material Requisition, Form 3, which should be posted daily.

The information called for under caption "Balance" represents the difference between the column headed "Received" and the column headed "Delivered," both in quantity and value. The difference between the column headed "Ordered" and the column headed "Received" will represent the goods ordered and not received. Adding the total balances together, the Raw Material Ledger should agree with balance to debit of Raw Material in Gen-





eral Ledger account. This sheet should be put in a lock-post binder, which can be easily locked and unlocked without having to take out any sheets.

PRODUCTION ORDER.

This order should be made out for all goods ordered from the factory and no work should be done without having first issued an order which should be duly signed by the manager. This order represents the authority to manufacture goods and will enable the manager to require a fixed amount of work from the factory daily. All material used on this order should be charged against this order and a separate order should be issued for each lot of furniture to be manufactured. For instance, this Production Order is only intended to carry the serial number of the order with the quantities and dates required by the manager. Each order should carry with it the cutting order for the cut-off saw, as well as the drawings for the mill department, cabinet department, and the list of material to be drawn from stockroom, and if not

Customer's Order No. _____ PRODUCTION ORDER No. _____ Date _____

| Date Required | Articles | Quantity | Rate | Amount |
|---|---|---|---|---|
| | | | | |

Manager

FORM 6.

in stock, should be purchased. The details as to finish should as well accompany order, so that the finishing or painting and varnishing department can know how to arrange their work to get this order done on time.

When the order is completed and delivered to the store-room, this form should be returned to the office together with Production Report, showing the production for the day. The numbers of Production Report or Reports, as the case may be, should be entered on the order; the duplicate remaining in the book is for the purpose of stating the cost of each order issued.

TIME CARD.

The Time Card should be made out by mechanic when he has a helper on a job for the day, for both helper and himself, filling out the information called for on card. When helper is working alone, he should fill out card giving information called for, as each workman's time is calculated from his time card, which is enetred in Pay Roll Book for payment at end of pay roll period. An International Time Recorder may be used to record time of arrival and departure of each employe, thereby securing a complete check on the time

Lot No.____ Cut in Oak ____ Cut in Birch ____ Cut in Maple ____ Cut in Mahogany ____ MACHINE LABOR COST Date Issued ____ Date Completed ____

ARTICLE ____

| Cutting Up No. 1 | Gluer No. 2 | Face and Joint No. 3 | Planer No. 4 | Resaw No. 5 | Joint Veneer No. 6 | Veneer No. 7 | Rotary Plane No. 8 | Shaper No. 9 | Tenon No. 10 | Band Saw No. 11 | Panelers No. 12 | Cut off No. 13 | Bar Nos. 14 | Sander No. 15 | Drum No. 16 | Spindle No. 17 | Belt No. 18 | Dove Tail No. 20 | Lock Nos. 21 | Hook Nos. 22 | Miter No. 23 | Carbon No. 24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | |

FORM 7.

turned in by employes in factory, as well as ascertaining the number of hours other employes spend in factory offices.

### PAY ROLL BOOK.

This should be a bound book in accordance with form and should be used as follows: All time cards should be collected and the hours entered in the proper day space alongside of the workman's name and check number and after being extended and entered in cost ledger, should be put in the cabinet under the proper check number and name until end of week, when they should be collected together and the value of each workman's time entered in the amount column alongside of check number, as well as enter the value of the labor in the proper department under the proper column. Direct Labor is charged to a cost sheet. Indirect is an expense as well as Supervision. Commencing at left-hand side of sheet and adding horizontally to Friday, the total should agree with the total of the amount column alongside of the check number.

### COST SHEET (FINISHED PRODUCT).

This should be kept on the loose-leaf ledger plan.

### MACHINE LABOR.

A separate Cost Sheet should be made out for each Production Order number, showing articles ordered from factory. As soon as Time Cards are extended, enter the value of hours spent on each operation from 1 to 24 in machine department.





### FINISHING LABOR.

A separate Cost Sheet should be made out for each Production Order number.

### CABINET DEPARTMENT COLUMN.

All cabinet labor being on piece work, the value of each piece can be entered in cabinet department column from time cards.

### STAINING, VARNISHING, RUBBING AND POLISHING DEPARTMENT.

All labor should be entered in proper column for staining, varnishing prime coat, sanding, varnishing finishing coat and rubbing and polishing, all of which are provided on Labor Cost Sheet.

After lot has been finished the columns of each operation can be totaled and entered under caption "Labor" of Cost Finished Product Sheet, Form

DIXON MFG. CO. STOCK DIVISION

Name ____ Max ____

Bin No. ____ Min. ____

Section No. ____ DATE ORDERED BY STOREKEEPER

| INWARDS | | | | OUTWARDS | | | Stock on Hand |
|---|---|---|---|---|---|---|---|
| Date | Price | Order | Quantity | Date | Order | Quantity | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

FORM 8.

9, giving cost of each operation. Information called for under caption "Material Costs Finished Product," can be obtained from Material Requisitions, Form 3. Information called for under caption "Indirect Expenses" represents the percentage of Indirect Expense added to the cost of each order, which should be figured on the basis of Direct Labor. The Indirect Expenses consist of Indirect Labor and all other accounts shown on the classification of accounts submitted under the general caption "Indirect Expenses." The addition of these accounts divided by Direct Labor should give the percentage of Indirect Expenses by distributing over the production for the month on the basis of Direct Labor. The average of the Indirect Expenses should be taken as a basis after the cost has been obtained for the first month. The total cost represents the addition of the three columns, "Labor," "Material" and "Indirect Expenses." All posting to the Cost of Machine and Finishing Labor Sheets shoud be done daily. All posting to Costs Finished Product under caption "Material" should be done daily. Information called for under "Transferred to Stock" can be obtained from reports received from Production Report Finished Product, Form 10.

ARTICLE — COSTS FINISHED PRODUCT — Lot No. / Date Issued / Date Wanted

| DATE | LABOR | | | | | MATERIAL | | | | | Indirect Expense | Total Cost | TRANSFERRED TO STOCK | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Operation | Check No. | Quantity | Rate | Amount | Description | Requisition Number | Quantity | Rate | Amount | Amount | Amount | Report No. | Quantity | Rate | Amount |
| | | | | | | | | | | | | | | | | |

FORM 9.

PRODUCTION REPORT FINISHED PRODUCT.

This report should be filled out daily by the superintendent or foreman, and should be sent to the stockroom, together with the production of the factory for the day. The stock clerk should sign this report, when the goods are received in good condition, he should then hand this report into the office in order that the cost may be entered and rate figured, which can be obtained from the Cost Sheet for the orders completed on this Production Report. The number of the Production Report should be entered as previously stated on the Cost Sheet, which should be ruled off and filed as completed orders.

SHIPPING ORDER.

This order should be filled out in duplicate, using short carbon for shipping clerk's order, so as to not take in the name of the party to whom the shipment is charged, nor the price and value. Original is to be held on Unfilled Order file until duplicate is returned from shipping department dated and signed by shipper, when original can be billed on Form 12 and filed on Filled Order file.

INVOICE.

This form is made out from Form 11 on billing machine which carbons to Form 13.





Finished in Oak ____ Date Received ____
Finished in Birch ____ Date Received ____
Finished in Maple ____ Date Received ____ Lot No. ____
Finished in Mahogany ____ Date Received ____

FINISHING LABOR COST

ARTICLE

| | Cabinet Work | Staining | | | | Varnishing Prime Coat | | | | Sanding | | | | Varnishing Finishing Coat | | | | Rubbing + Polishing | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Oak | Birch | Maple | Mahog. | Oak | Birch | Maple | Mahog. | Oak | Birch | Maple | Mahog. | Oak | Birch | Maple | Mahog. | Oak | Birch | Maple | Mahog. |
| | | | | | | | | | | | | | | | | | | | | | |

FORM 10.

SALES SHEET.

This form is a carbon copy made from Form 12, except details as to cost entered on right-hand side, which can be obtained from Form 14, Stock Finished Product. The prices and extensions are first proven, then entered in Stock Ledger, Form 14, then in Sales Register, Form 15, and then filed in Billed Sales file.

STOCK SHEET (FINISHED PRODUCT).

A separate sheet should be used for each article and kept on the loose-leaf ledger plan. In the upper right-hand corner the words "Maximum" and "Minimum" appear, which represent the maximum and minimum amount of each article to be carried in stock, which should be considered in connection with the unfilled orders, as well as the balance of the stock on hand in issuing Production Orders, authorizing the factory to produce the articles called for by this sheet.

The information called for under the caption "Production" can be obtained from the "Production Reports," which should be posted daily. The information called for under caption "Orders Received" can be obtained from the orders previously mentioned, and should be posted daily. The information called for under the caption "Orders Canceled" can be taken from advice received by telephone or mail, as the case may be. The information called for under caption "Sales" and "Cost of Sales" can be obtained from the Sales Sheets, and should be posted daily. The column headed "Gross

| | Our Sale No | Not responsible for Goods after Transportation Co has receipted for same in good order | Oak Chamber Suits |
|---|---|---|---|
| | Your Order No. | Manufacturer of FURNITURE | Special Designed Furniture and Chiffoniers |
| | Terms | Factory Sixth, Moore and Pierce Sts Office | BOTH PHONES |
| | F.O.B. | Sold to | Salesman |
| | Shipped Via | | |

| Style No. | Finish | Description | Quantity | Price | Amount | Total |
|---|---|---|---|---|---|---|
| | | | | | | |

FORM 11.

SHIPPING ORDER

Order No.
Date Shipped
How Ordered
Shipped by
Salesman

Account of
Ship To
Address
Via

| Quantity | Style | Weight | Articles | Price | Amount |
|---|---|---|---|---|---|
| | | | | | |

Billed

FORM 12.

Profit" will represent the difference between the selling and cost price of the goods sold, which will place all profit on a unit basis. The orders received and the orders canceled and sales will show the quantity of each article ordered, but not shipped, and the unfilled order should regulate production. The column headed "Balance" will represent the difference between the column headed "Production" and the column headed "Sales" at the cost price and will show the quantity and the cost of each article on hand.





| | Our Sale No. | Philadelphia, | Price Correct |
|---|---|---|---|
| | Customers Order No | | Extensions Correct |
| | Terms | | Entered Stock Ledger Folio |
| | F.O.B. | Sold to | Entered Sales Register Folio |
| | Shipped Via | | Entered Ledger Folio |
| | | | Salesman |

| Style No. | Finish | Description | Quantity | SELLING PRICE Rate | Amount | Total | COST PRICE Rate | Amount | Total |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

FORM 13.

PLANT LEDGER.

This ledger should be kept on the loose-leaf plan. The information called for under the caption "Costs" can be obtained from the Material Received

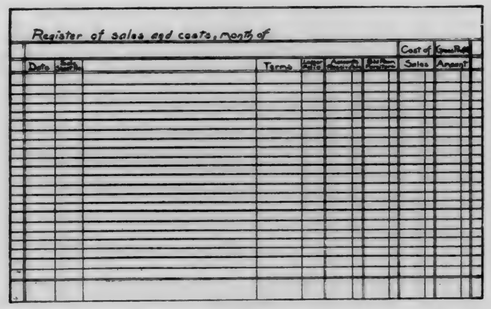
STOCK
FINISHED PRODUCT

Sheet No.
Maximum
Minimum

ARTICLE

| Date | PRODUCTION | | | | Orders Received | Orders Cancelled | SALES | | | | Cost of Sales | | Gross Profit | | Unfilled Orders | BALANCE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Production Report No. | Quantity | Rate | Cost | Quantity | Quantity | Sale Sheet No. | Quantity | Price | Amount | Price | Amount | Amount | Price Per | Quantity | Quantity | Rate | Amount |
| | | | | | | | | | | | | | | | | | | |

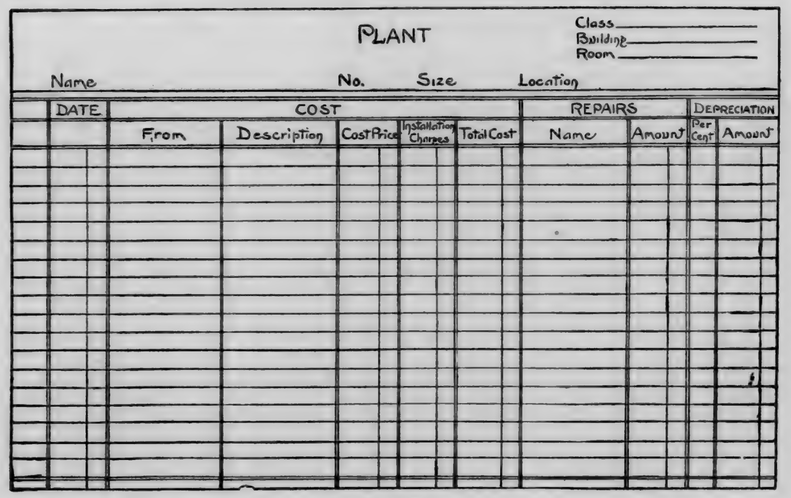
FORM 14.




FORM 15.

Sheets and Time Cars or Machinists, etc. New machines or tools should be charged to regular order number regarding all charges on the Cost Sheet, in the same way that the product would be handled, providing the machines or tools are made in the factory.

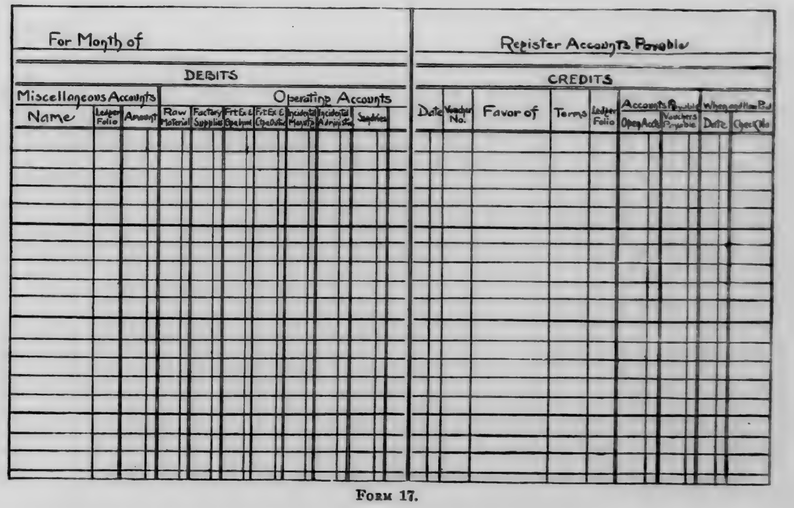
The information called for under caption "Repairs" can be obtained from the Time Cards and should be posted daily for the purpose of determining the maintenance and the cost of each machine or tool. This repaired work, however, refers to actual repairs but does not refer directly or indirectly to




FORM 16.

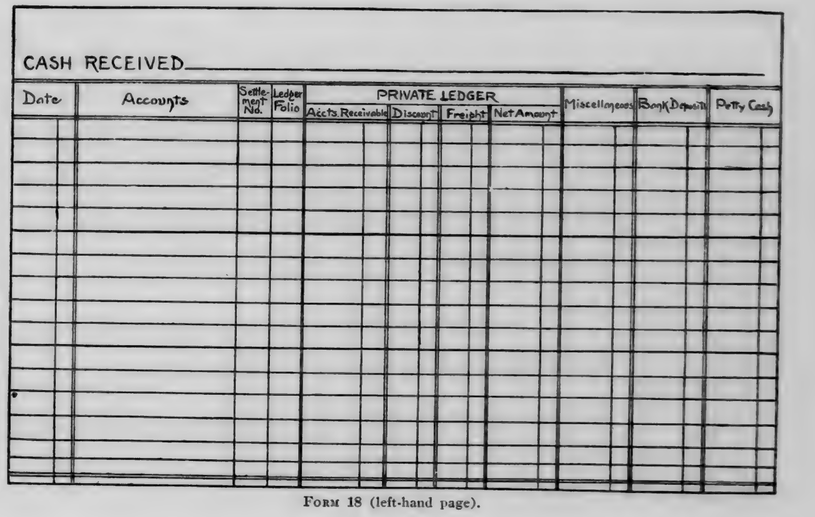







FORM 17.

adjustments of any description. The information called for under the caption "Depreciation" should be based on the life of the machine or tool. The depreciation should be figured each month and charged to Depreciation of




FORM 18 (left-hand page).

CASH DISBURSED

| Date | Accounts | Ledger Folio | Voucher Number | PRIVATE LEDGER Accts. Payable | Discounts | Factory Supplies | Light, Heat and Power | Miscellaneous | Check No. | Bank Withdrawals | Petty Cash |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

FORM 18 (right-hand page).

Plant and credited to Depreciation and Extinguishment Fund. This ledger, if properly kept, will represent the running inventory of your plant, which would be most valuable in the event of fire, and great care should be taken to make this record complete. The repairs on each machine should be carefully followed in order to determine the efficiency or inefficiency of the operating machine or general machinery.

REGISTER OF SALES AND COSTS.

This register should be a bound book. The information called for under the caption "Sales" can be obtained from the Sales Sheets, which should be posted daily. The information called for under caption "Cost of Sales" can be obtained from the Sales Sheets also. The column headed "Gross Profit"

MANUFACTURER OF FURNITURE
Auditing Department Moore St.

Credit Memorandum No. _____ Philadelphia, Pa. _____ 190__

To _____

We have credited your account this date with
The Sum of _____ Dollars
For _____

Applying to your bill of _____ Dated _____ 190__
Agreement F.O.B. _____
For Material Consigned to _____
Cars No. _____
Your Order No. _____ Credit
Our Voucher No. _____
Debit _____
Approved _____ 190__ Debit

Any communication in regard to above should be addressed to Accounting Dept. care of Auditing Dept. Accounting

FORM 20.





JOURNAL ENTRIES

| DEBITS Accounts Receivable | Accounts Payable | Sundries | Classification No. | Ledger Folio | Description | Ledger Folio | Classification No. | CREDITS Sundries | Accounts Payable | Accounts Receivable |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

FORM 19.

will represent the difference between the selling price and the cost price and will show the profit daily.

This book should be ruled off each month and all totals entered in ink. The total sales for the month shown in the column headed "Accounts Receivable" should be posted to the debit of Accounts Receivable account each month in the private ledger and the Bed Room Furniture Department credited. The Bed Room Furniture Department should be debited with "Cost of Sale" and Finished Product credited at cost.

MANUFACTURER OF FURNITURE
Auditing Department Moore St.

Debit Memorandum No. _____ Philadelphia, Pa _____ 190__

To _____

We have charged your account this date with
The Sum of _____ Dollars
For _____

Applying to your bill of _____ Dated _____ 190__
Agreement F.O.B. _____
For Material Consigned to _____
Cars No. _____
Our Order No. _____ Debit
Our Voucher No. _____
Credit _____
Approved _____ Credit

Accounting

Any communication in regard to above should be addressed to the accounting dept. care of Auditing Dept.

FORM 21.

ACCOUNTS RECEIVABLE

Sheet No. _____
Rating _____
Credit Limit _____

Name _____
Address _____

| DEBITS | | | | | | | CREDITS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Description | Sales Sheet No. | Book and Page | Settlement No. | Amount | Balance | Balance | Amount | Settlement No. | Page | Book | Description | Date |
| | Brought Fowd | | | | | | | | | | | Brought Fowd. | |

FORM 22.

REGISTER OF ACCOUNTS PAYABLE.

This register should be a bound book. The information called for can be obtained from the invoice, which should be entered daily. The Purchase Orders and the Material Received Sheets should be attached to all invoices before being entered, which should then be filed away in the "Unpaid Bill File." When these bills are paid they should be filed numerically, using voucher number. This book should be ruled off and all totals entered in ink each month. The total purchases for the month should be posted to the credit of Accounts Payable. The columns on the right of the fancy line, in the middle of the book, should be posted to the debit of the proper account, excepting the miscellaneous columns, which should be posted separately. All items appearing in this column should be posted daily. When these bills are paid the date of payment, as well as the check number, should be entered under the caption "When and How Paid."

CASH BOOK.

This book should be ruled off and all totals entered in ink at the end of each month.

DEBIT SIDE.

The column headed "Accounts Receivable" should be posted to the credit of Accounts Receivable account in private ledger at end of month. The column headed "Discount" should be posted to the debit of the discount account. The column headed "Freight" should be posted to the debit of Sales Freight account. The column headed "Net Amount" should be added





ACCOUNTS PAYABLE

Sheet No. _____

Name _____
Address _____

| DEBITS | | | | | | CREDITS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Description | Book and Page | Settlement No. | Amount | Balance | Balance | Amount | Settlement No. | Page | Book | Voucher to | Date |
| | Brought Fowd | | | | | | | | | | Brought Fowd | |

FORM 23.

to column headed "Miscellaneous" at end of month (which is posted separately, item by item each day), and this will be total cash received for month, and is to be posted to the debit of cash account in private ledger. The column headed "Bank Deposits" should be treated as a running bank account; each deposit should be entered in this column daily. The column headed "Petty Cash" should be treated the same as a petty cash book, entering daily all receipts of cash drawn from bank for this fund, entering check number on debit side of cash book when withdrawals are made from bank. All receipts should be deposited, including currency in every particular, thereby giving an accurate check on receipts. The column headed "Settlement Number" is to be used as a check against the Accounts Receivable or Payable, thereby showing at a glance in the ledgers the condition of a customer's account. For instance, a customer sends in settlement of a certain number of invoices. The book-keeper looks up the account in his ledger and finds that the check is in settlement of certain accounts; he enters on customer's statement the settlement number of serial 1, as well as in ledger alongside the bill in the settlement column; the check and statement is handed to cashier and he enters the date, customer's name, settlement number and gross amount of bills in "Accounts Receivable" column; should it be an Account Receivable, discount in "Discount" column, freight in "Freight" column, and the amount of check in "Net Amount" column, receipt statement and return to customer. In posting from cash book, the book-keeper posts the settlement number as well as the gross amount of the bill to credit side of customer's account.

ACCOUNT NO. _____

| DEBITS | | | | | | | CREDITS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Description | Book | Page | Amount | Total | Balance | Balance | Total | Amount | Page | Book | Description | Date |
| | | | | | | | | | | | | | |

FORM 24.

CREDIT SIDE.

The credit side of cash book should be treated as follows: In making a payment, first comes the date, then name to whom paid or charged, next the voucher number, which can be secured from Accounts Payable voucher, gross amount of voucher, discount, and then the net amount disbursed in "Miscellaneous" column, then check number and amount of check in "Bank Withdrawals" column.

"Factory Supplies, Light, Heat and Power" column is to be used for small petty purchases for the use of mill, for which it is useless to carry a large quantity in stock. Any small items paid for in cash are entered in these columns and in turn entered in "Petty Cash" column. These two columns should be added to "Miscellaneous" column and totaled and posted to credit of cash account in private ledger at the end of month, then enter in red ink the balance of cash on hand in bank and safe. The Bank Withdrawals should be totaled and entered in cash book, which should agree with disbursements in check and bank book. The balance in bank should be entered in red ink as well as the balance in petty cash which must agree with total cash balance. The "Accounts Payable" column total is to be posted to the debit of Accounts Payable account in private ledger monthly. The Discount total is to be posted to the credit of discount account in private ledger monthly. Items not entered in "Accounts Payable," "Factory Supplies," "Light, Heat and Power" columns and in "Miscellaneous" column should be posted daily.

JOURNAL.

This can be kept on the loose-leaf plan, using a lock with one key. This journal entry voucher is self explanatory, therefore I will not take up time in details.





Pay Roll Week Ending _____

| Mill Labor | | | Veneer Labor | | Cabinet Labor | | Varnish Labor | | | Sanding | Friday | Saturday | Monday | Tuesday | Wednesday | Thursday | Total Hours | Rate | Amount | Check No. | Name |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direct | Indirect | Supervision | Direct | Indirect | Direct | Indirect | Direct | Indirect | Supervision | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

FORM 25.

CREDIT MEMORANDUM.

This form is in duplicate, the original is sent to customer and the duplicate is kept on a loose-leaf binder under lock and key.

DEBIT MEMORANDUM.

This form is made in duplicate. The original is sent to chargee and duplicate is put on loose-leaf binder under lock and key of chargor.

Forms 21 and 22 are self explanatory.

ACCOUNTS RECEIVABLE LEDGER.

This ledger should be kept on the loose-leaf plan, and all accounts arranged alphabetically. All entries should be taken from either the Register of Sales and Costs, cash book or Journal Entry Voucher, excepting returns and allowances, which should be entered in the Register of Returns and Allowances. A trial balance should be prepared each month which would balance with the completed account kept in the private ledger.

ACCOUNTS PAYABLE LEDGER.

This ledger should be kept on the loose-leaf plan and all accounts arranged alphabetically. All entries should be taken from the Register of Accounts Payable, cash book, Journal Entry Vouchers and Register of Returns and Allowances. A trial balance should be prepared each month which should balance with the completed account kept in the private ledger.

PRIVATE LEDGER.

This should be a bound book with pages numbered consecutively. The classification of accounts submitted should be arranged in sections as shown. This ledger will furnish a complete historical record of the business, and great care should be taken to make this record complete.

REGISTER OF RETURNS AND ALLOWANCES.

This should be a bound book of 300 pages numbered consecutively. All entries should be taken from credit and debit memoranda and should be entered the same as sales are entered in Register of Sales and Costs except that postings are reversed.

COMPARATIVE BALANCE SHEET.

This form should be kept on a post lock binder. All information can be obtained from private ledger.

STATEMENT OF PROFIT AND LOSS.

This form should be kept on a post lock binder. All information can be obtained from private ledger. The percentages called for are based on sales.

STATEMENT OF ORDERS, SALES, PRODUCTION AND COSTS.

This form should be kept on a loose-leaf post binder. The information can be obtained from the Finished Stock Records. This statement will show how the inventory is made up and will also show the unfilled orders on hand.

STATEMENT OF FACTORY EXPENDITURES.

This form should be kept on a loose-leaf lock binder. The information can be obtained from the private ledger. The purpose of this statement is to show the expenditures for the month, and for the year to date. This statement will show the nature of the expenditures, while the statement referred to will show what the inventory shown by this statement consists of, and will show the cost of production.

Register of Sales and Costs. Month of

| Sales | | | | | | | | | | Cost of Sales | | | Gross Profit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Sale Sheet No. | Name | Terms | Led. Fol. | Accounts Receivable | Lathes | Parts | Repairs | | Lathes | Parts | Repairs | |

FORM 26.





Statement of Production, Orders and Costs

| Production | Inventory beginning of Month | | | Production Current Month | | | Sales | | | Inventory end of Month | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | quantity | cost | amount | quantity | cost | amount | quantity | cost | amount | quantity | cost | amount |
| Total | | | | | | | | | | | | |

| Orders | Unfilled Orders beginning of Month | | | Orders Received during Month | | | Sales and cancelled Orders during Month | | | Unfilled Orders at end of Month | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | quantity | price | amount | quantity | price | amount | quantity | price | amount | quantity | price | amount |
| Total | | | | | | | | | | | | |

FORM 27.

CLASSIFICATION OF ACCOUNTS.

ASSETS.

Plant Accounts
- Real Estate
- Machinery
- Machine Tools
- Special and Small Tools
- Factory Furniture and Fixtures
- Office Furniture and Fixtures
- Horses and Wagons

Deferred Charges:
- **Insurance**
- **Interest**
- **Postage, Printing and Stationery**
- **Repairs and Improvements**

**Current Assets:**
- **Cash**
- Notes Receivable
- Accounts Receivable
- Raw Material
- Finished Material
- Material in Process

LIABILITIES.

**Capital Stock:**

**Current Liabilities—**
- Notes Payable
- Accounts Payable
- Wages Payable
- Interest Payable
- Taxes Payable

**Dividends Payable:**

Reserve Funds—
- Doubtful Accounts
- Depreciation and Extinguishment

**Surplus:**

OPERATING ACCOUNTS.

Material:
- Raw Material
- Finished Material
- Material in Process

**Labor:**

DIRECT.

Machine Department
Cabinet Department
Veneer Department
Finishing Department

INDIRECT.

Machine Department
Cabinet Department
Veneer Department
Finishing Department

SUPERVISION.

Machine Department
Cabinet Department
Veneer Department
Finishing Department

Indirect Expenses:
Factory Supplies
Purchase Freight
Light, Heat and Power
Insurance Expired
Taxes Expired
Repairs to Machinery
Repairs to Machine Tools
Repairs to Factory Furniture and Fixtures
Repairs to Real Estate
Defective Work
Experimental
Shipping Department Expenses
Incidental Manufacturing
Depreciation of Plant

Sales and Cost of Sales:
Bed Room Furniture

Selling Expenses:
Discount on Sales
Sales Freight
Commissions
Incidentals
Traveling
Advertising

Administration Expenses:
Salaries of Officers
Salaries of Clerks
Dining Room Expense
Legal Expense
Interest
Discount
Postage, Printing and Stationery
Telegraphing and Telephoning
Watchman's Expense
Real Estate Rentals
Incidentals
Doubtful Accounts

Profit and Loss:





| ARTICLE | | | UNIT | | COST | | MAX | | MIN. |
|---|---|---|---|---|---|---|---|---|---|
| SIZE OR KIND | | | | | | | | | |
| RECEIVED | | | | | | DELIVERED | | | | | | | |
| Date | Quan | Cost | Frt and Ctg. | Cost Ea. | Date | Order No | Quan. | Date | Order No. | Quan | On Hand |
| | | | | | | | | | | | |
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FORM 1.

## (746B) MANUFACTURING SYSTEM AS APPLIED TO A SMALL SHOP.

This is a copy of the report and recommendations made to a manufacturer of filters. This is a small establishment employing about a dozen men, all of the work being handled in one room. All castings are purchased in the rough from a jobbing foundry but are finished in the shop and a great many of the small parts and fittings are purchased ready to be assembled in the complete filter. A voucher system is used, the voucher record being similar to those illustrated in the first study. Two material accounts are carried, viz.: raw material or rough stores, and finished material.

COPY OF REPORT.

In regard to your factory system, we submit the following recommendations. The first matter for consideration is that of purchases. Since your factory superintendent will personally attend to the purchasing and will also act as his own receiving clerk, your present method of making orders in duplicate will be satisfactory. The duplicate copy will be retained by the superintendent and placed in a tickler so that it may be filed ahead from day to day to follow up the order until the goods have been received. To insure these orders being properly checked, we recommend the use of a rubber stamp printed as shown below.

This stamp is to be placed on the copy of the purchase order and also on the invoice when it is received. Before the order can be considered complete, or the invoice entered for payment, each line shown on this stamp should be initialed by the proper party and this, of course, cannot be done until the items have been entered on the stores card. This will insure all records being properly made.

ARTICLE

| FINISHED | | | | USED | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Quan. Finished | Date | Order No. | Quan. | Date | Order No. | Quan. | Date | Order No. | Quan. |
| | | | | | | | | | | |
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FORM 2.

STORES RECORDS.

So far as the cost system is concerned, the first essential is to have the stores properly cared for and accurately recorded so that it will be possible at all times to ascertain the exact quantities on hand. In your shop we find evidence of a considerable waste of material which is due to the fact that the workmen are allowed to help themselves and that they leave the surplus material on the benches or lying about the shop instead of returning it to one central storage place. While a single piece of material represents but a small outlay, the aggregate of these losses will amount to a considerable sum in the course of a year.

We recommend, therefore, that you concentrate all materials carried in stock in one storage place. In one corner of the shop where you now have racks for certain stores, there seems to be sufficient room and by re-arranging these racks, you have a definite storage-room with very little expense. This storage-room should be enclosed and we suggest running a wire partition across the front with a door at one end. The partition should be, say 6 feet high and by using the wire screen, the light would not be shut off.

Instead of allowing the workmen to go in and help themselves, this storage-room should be in charge of the superintendent, or some one delegated by him, and no one else should have access to the room. If this is placed in his direct charge, the superintendent can issue the materials required by the workmen and at the same time keep a record of what is going out.

When you have your stock-room in shape, the first necessity will be to take an inventory of all stores on hand. These stores should be divided into two classes, viz.: rough and finished stores. Rough stores will consist of castings, sheet steel, sheet brass and similar materials which you purchase in the rough state and work over to make the various parts used in your filters.





SHOP ORDER.

No. _____ Date

To Superintendent

Make for Stock Order No the following to be completed by _____ 190

Signed _____ Genl. Mgr.

| QUANTITY | NUMBER OR DESCRIPTION | REMARKS |
|---|---|---|
| | | |

Completed 190

_____ Supt.

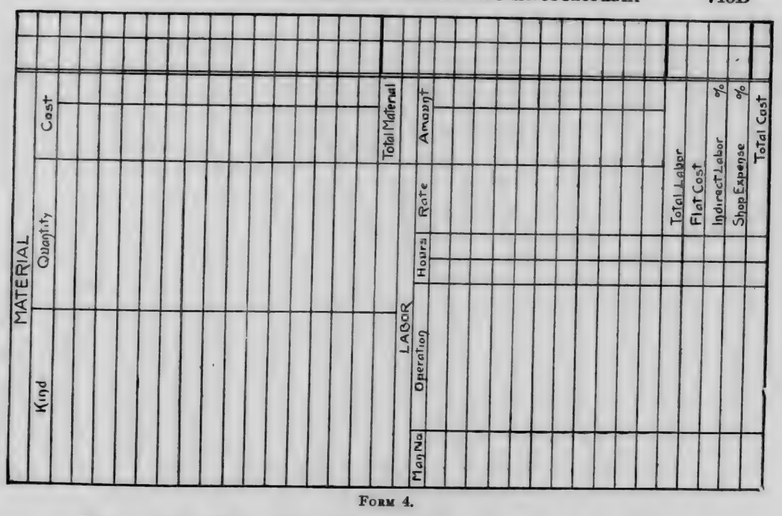
FORM 3.

Finished stores will include those parts which you purchase complete ready for use and also the completed parts which you make from the rough stores. To illustrate, a casting or a base goes into the rough stores; when it has been machined, drilled and tapped, it is properly classified as finished stores.

When an inventory is taken, the quantities on hand should be recorded on cards printed as shown in Exhibit 1. A card is to be used for each article carried in stock and where the same article is carried in different sizes, a card is to be used for each size. At the top of the card is entered the name of the article, size or kind, the unit representing pounds, feet, dozen, etc., and the cost. At the extreme right are spaces for noting the maximum and minimum stock limit. For each article a maximum and minimum limit should be established and as soon as the stock reaches the minimum limit, the man in charge of the records must see that a new supply is ordered.

This card shows the quantities received from time to time with the cost, including cost of freight and cartage. At the right is a record of material delivered, showing date, order number, and quantity, with a balance column for extending the balance on hand. This card will answer either for rough stores or those finished stores which are received ready for use.

The back of this card should be printed as shown by Exhibit 2, this being a record of the stores which have been finished in your shop. To illustrate, we will take a casting. We will suppose that twenty rough castings are received, these being entered on the face of the card. On a cerain date ten of these castings are finished; these are entered on the reverse and, as the finished castings are withdrawn from the stores-room, they are also entered on the reverse. The face of the card will show, at all times, the number of rough castings on hand, while the reverse will show the number of finished castings.




Form 4.

These cards will be filed alphabetically according to the name of the article or, if it seems to be more convenient, the cards for finished stores may be filed by part numbers. Instead of using alphabetical index cards, we suggest using what are known as blank guides and writing the names of the articles on the projections, thus making your own index, which will be more complete than would be possible with the ordinary alphabetical guides.

### SHOP ORDERS.

Since you have on hand a considerable supply of duplicate invoice blanks, we recommend for the present making a separate shop order for each lot of filters or each lot of parts to be finished. This order may be for goods required to fill a given order or for goods carried in stock but nothing should be completed without an order. The face of the shop order is shown in Exhibit 3, this being simply an order to the superintendent to make certain articles. This shop order is 5 x 8 inches in size and should be printed on some good tough stock of a color which will not quickly show soil.

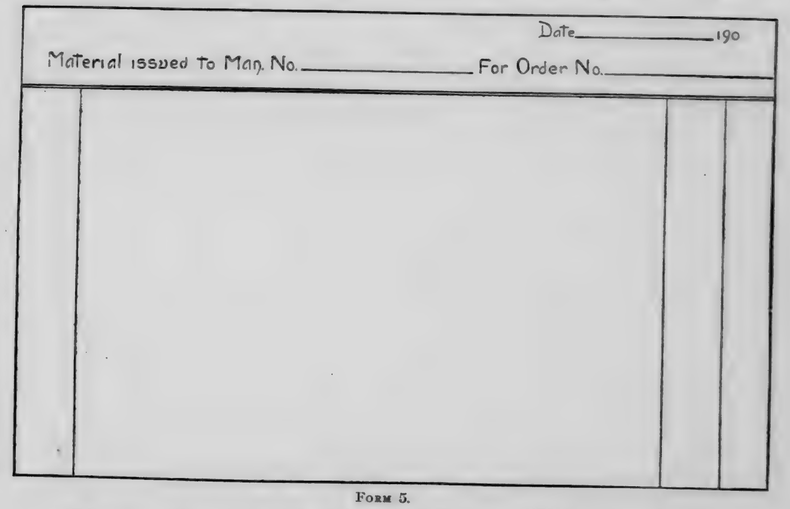
The back of the shop order should be printed as shown in Exhibit 4; this is a record of the material and labor required to complete the job. In other words, it is the cost sheet for that particular job.

### MATERIAL RECORDS.

Since your superintendent is to issue all material, it will not be necessary to make a formal requisition as is usually done, but the material records can be obtained by means of a material slip shown in Exhibit 5. When the superintendent issues material for a certain job, he should make out one of these slips showing the number of the man to whom issued and also the order number which should correspond to the number of the shop order.








Form 5.

From these material slips he will make the record on the stores card, showing materials delivered and then retain the slip until the job is completed. If any material is left over, it should be returned to the stores-room, credited on the card and also on the material slip. When the job is completed, the cost of materials used should be extended on the material slips and the totals entered on the cost sheet, Exhibit 4.

### LABOR RECORDS.

To arrive at the exact cost of manufacture, it is absolutely essential that you obtain accurate information as to the time required by each man on the several parts of the work. We have provided for this by means of a work ticket, as shown in Exhibit 6. Whenever a job of any character is started, one of these work tickets should be filled out by the superintendent and given to the man who is to begin the work; this is the workman's authority for doing the work.

At the top of the card is shown the shop order number, the name of the part to be made, the date started and the quantity to be completed. In the next blank space below will be entered the number of the man starting the work, the rate of pay, name of operation, date and number finished, the latter item being entered when the job is completed or at the close of the day in case more than one day is required for his operation. Below this is the printed time record, the day being divided into fifteen-minute periods.

When the workman begins on the job, he is to indicate the time on the card, *i. e.*, if he begins at fifteen minutes past 8, he will place a cross over the ¼ immediately following the number 8. When his operation is completed, he is to check the time in the same way, and, if not completed at the close of the

WORK TICKET

SHOP ORDER NO._____ DATE _____

PART_____ QUANTITY_____

| MAN'S NO. | RATE | OPERATION | DATE | NO. FINISHED |
|---|---|---|---|---|
| 8 ¼ ½ ¾ | 9 ¼ ½ ¾ | 10 ¼ ½ ¾ | 11 ¼ ½ ¾ | 12 ¼ ½ ¾ |
| 1 ¼ ½ ¾ | 2 ¼ ½ ¾ | 3 ¼ ½ ¾ | 4 ¼ ½ ¾ | 5 ¼ ½ ¾ |
| 8 ¼ ½ ¾ | 9 ¼ ½ ¾ | 10 ¼ ½ ¾ | 11 ¼ ½ ¾ | 12 ¼ ½ ¾ |
| 1 ¼ ½ ¾ | 2 ¼ ½ ¾ | 3 ¼ ½ ¾ | 4 ¼ ½ ¾ | 5 ¼ ½ ¾ |
| 8 ¼ ½ ¾ | 9 ¼ ½ ¾ | 10 ¼ ½ ¾ | 11 ¼ ½ ¾ | 12 ¼ ½ ¾ |
| 1 ¼ ½ ¾ | 2 ¼ ½ ¾ | 3 ¼ ½ ¾ | 4 ¼ ½ ¾ | 5 ¼ ½ ¾ |
| 8 ¼ ½ ¾ | 9 ¼ ½ ¾ | 10 ¼ ½ ¾ | 11 ¼ ½ ¾ | 12 ¼ ½ ¾ |
| 1 ¼ ½ ¾ | 2 ¼ ½ ¾ | 3 ¼ ½ ¾ | 4 ¼ ½ ¾ | 5 ¼ ½ ¾ |
| 8 ¼ ½ ¾ | 9 ¼ ½ ¾ | 10 ¼ ½ ¾ | 11 ¼ ½ ¾ | 12 ¼ ½ ¾ |
| 1 ¼ ½ ¾ | 2 ¼ ½ ¾ | 3 ¼ ½ ¾ | 4 ¼ ½ ¾ | 5 ¼ ½ ¾ |
| 8 ¼ ½ ¾ | 9 ¼ ½ ¾ | 10 ¼ ½ ¾ | 11 ¼ ½ ¾ | 12 ¼ ½ ¾ |
| 1 ¼ ½ ¾ | 2 ¼ ½ ¾ | 3 ¼ ½ ¾ | 4 ¼ ½ ¾ | 5 ¼ ½ ¾ |

FORM 6.

working period, he is to check the time he quits work. When the work runs over from one day to another, the entries will be repeated and the time checked in the next space below. On ordinary jobs where the work passes from one man to another, one card will be sufficient as the card will follow the job and each man will enter his time in the next space below the one used by his predecessor. On large jobs where several men are working at the same time, it is advisable to issue a card for each workman. When more than one card is issued, each should of course bear the same number, i: e., the number of the shop order.

In your shop we find what appears to be an unnecessary waste of time in changing machines from one job to another. This seems to be due to the fact that the work has not been properly planned, with the result that a machinist is frequently required to change his machine to turn out some special job before the work in hand is completed. To assist your superintendent in arriving at a correct basis, it is important that you should know just how much time is being consumed in changing from one line of work to another, Therefore we recommend keeping an exact record of the time required in changing machines. To arrive at this, issue the machinist a time card, Exhibit 6, and instruct him to use that card for recording the time required in changing machines from one job to another. The cost of this time is properly chargeable to the machine operations on the various jobs in proportion to the time taken to complete the job.

When this record has been kept a short time, you will find that economy will result from planning the work in advance. Ordinarily, the time required for machine operations on a certain job should be figured from the time the machinist starts to set his machine until the job is completed but owing to the





PART NO USED ON

| Date | Operation | Quan. | Mags No. | Hrs. | Rate | Cost | Each | Matl Each | Total Each | Date | Quan | Mags No | Hrs. | Rate | Cost | Each | Matl Each | Total Each |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |

FORM 7.

extravagant waste of time as your shop is now conducted, we consider it advisable to keep a separate record of this time for the next sixty or ninety days. By that time your superintendent will undoubtedly have the work running nicely so that this special time record can be dispensed with.

### COLLECTING THE INFORMATION.

Every night the time cards and material slips should be collected and placed in your safe, keeping those of uncompleted jobs by themselves. In the morning the uncompleted work tickets will be taken out and distributed to the workmen, but it is important that they be kept where they cannot possibly be destroyed by fire over night as these records would in such a case be of considerable value. When the job is completed, the time and material records will be entered on the cost sheet on the back of the shop order.

To insure an accurate record being kept of all time, the workmen should be given to understand that they will be paid only for the time shown by the work tickets. If a workman finishes a certain job and the superintendent has no work ready for him, he should be instructed to enter on his time card "idle" and keep a record of the time until work is given him. When the system is in good running order, you will find few if any idle cards for two reasons: first, the workman, knowing that an exact record is being kept of his time on various jobs, will not pad the time to cover the period when he is without work; second, the superintendent will be careful to supply every man with work in advance, knowing that idle cards reflect on his management.

### FACTORY EXPENSE.

In addition to the items of material and direct labor, the cost of indirect labor and general expense enters into the cost of the job. By indirect labor

TYPE NO STYLE

| Parts | Number Used | Cost Each | Order | Quan. | Cost | Each | Order | Quan. | Cost | Each | Order | Quan. | Cost | Each |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| Assembling | | | | | | | | | | | | | | |
| Installing | | | | | | | | | | | | | | |
| Expense | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | |

FORM 8.

is meant that labor which, while necessary in the conduct of the factory, does not enter directly into the manufacture of the goods, or in other words, cannot be applied directly to a given job. This includes the salary of the superintendent, salary of the factory clerk or cost-keeper and general laborers. One of the accepted methods of apportioning this item is on the basis of indirect labor to direct labor in a given pay-roll period. Suppose that during the pay-roll period the cost of direct labor as shown by the time cards is $500.00; the pay-roll is, say $550.00, leaving $50.00 to be charged to indirect labor. Dividing $50.00 by $500.00 gives 10 per cent., therefore to each job there should be added for indirect labor, 10 per cent. of the cost of direct labor.

General expense includes rent, insurance, taxes, power, light, heat, factory supplies, and all of the expenses of the factory not otherwise accounted for. This may be apportioned on the same basis as indirect labor, *i. e.*, add the percentage which the general expenses for the month bear to the total charge for direct labor during the same period.

### CONTROLLING ACCOUNTS.

In the general ledger you are now carrying a labor account, material accounts, and the various expense accounts. In order to carry out the balance plan of improved systems, it will be necessary to open either in your general or private ledger, certain other accounts which, for convenience, we term "controlling accounts." First, you should open an account known as "manufacturing account," which will be an exhibit of the total cost of manufacturing your goods. When materials are received they will, of course, be charged direct to the various material accounts. Each day the materials issued, as shown by the material slips already referred to, should be figured at cost and these amounts credited to the various material accounts





and charged to manufacturing account. At the end of a pay-roll period, the total amount of the pay-roll is charged to labor account. Each day the cost of direct labor as shown by the time cards should be credited to labor account and the amount charged to manufacturing account.

The next account to be opened is the expense adjustment account. Referring to the various expense accounts, it will be seen that many of these accounts are made up of items which are paid but once or twice a year. As an illustration, take the items of taxes and insurance. The total amount for the year is paid at one time but each month one-twelfth of this amount should be apportioned to the jobs of that month, therefore such accounts will, at the end of the month, be credited with one-twelfth of the yearly amount and this item will be charged to expense adjustment account. In the case of other expense accounts, where the items paid out apply to the current month only, the total amounts will be credited and charged to the expense adjustment account. The labor account has been charged with the total pay-roll and credited with the direct labor, leaving a balance which represents indirect labor. This item should be credited to labor account, thus balancing that account at the end of the month, and charged to expense adjustment account.

We now have total cost of expenses and indirect labor charged to the expense adjustment account and, for convenience in figuring the cost on individual jobs, we can use one percentage which will be the ratio that the total expenses bear to the direct labor for the month. If this happens to be 25 per cent. of the cost of direct labor, we will use that percentage to cover the item of factory expense on the next months' jobs. As the costs are figured on individual jobs, the total factory expense charged will be credited to expense adjustment account and charged to manufacturing account. At the end of current month, we may find that there is a small balance in the expense adjustment account for the reason that the percentage has varied from that of the previous month. Perhaps the exact percentage will be 26 per cent., which will leave a debit balance, or it may be but 24½ per cent, which would leave a small credit balance. To adjust this, it will be necessary to make an increase or decrease as the case may be, in the percentage during the next succeeding month.

As the jobs are completed, the total costs of material, labor, and factory expense will be credited to manufacturing account and charged to finished goods account which represents the finished goods on hand. To this latter acount, *i. e.*, finished goods, will be credited all sales at cost.

In the matter of parts finished for stock, the cost of the completed jobs will be credited to the manufacturing account but instead of being charged to finished goods account, it will be charged to the material account representing finished stores. In the case of material returned to stock which has previously been charged to a given job, the amount will be credited to manufacturing account and charged to the proper material account.

Our general and controlling accounts will now exhibit the following information: The balances of the various material accounts will represent the value of the rough and finished stores in the stores-room. The balance of

the manufacturing account will represent the cost in material, labor and expense of all unfinished goods in process. The balance of the finished goods account will represent the cost of all finished goods in stock. This brings the perpetual inventory into the general ledger and the only possible discrepancy will be the slight balance which may be on either side of the ledger in the expense adjustment account and this will be cared for during the following month. When the system has been in operation a few months, there should be practically no balances in this account.

MANUFACTURE OF PARTS.

Aside from the statistics shown by the general books, it will be advisable to maintain certain other comparative records. By giving the matter some attention, the superintendent will soon learn in what quantities the various parts are required and will find it advisable to have these parts finished in advance of his need. When he wishes to finish a certain number of parts, he will issue the work ticket, Exhibit 6, this ticket following the job to completion. In a case of castings, no other record of material will be required and when the job is completed, the proper entries can be made on the stores records. If parts are to be manufactured from one or more materials, it will be necessary to issue material slips, Exhibit 5, the same as is done for complete filters.

Each one of these completed jobs should be entered on the cost sheets, shown in Exhibit 7, this being a comparative cost of parts. One sheet is used for each part and in the column headed "operation," each separate operation is recorded. It will be seen that a record of the labor cost is first obtained, after which the cost of material is added, giving the total cost of each piece.

This cost sheet shows the record of two jobs side by side, and, since the number of operations is not more than four or five, one side of the sheet will hold the record of about six jobs. One advantage of the comparative record will be a record of the cost of parts when finished in various quantities.

COMPARATIVE COST OF COMPLETE FILTERS.

The sheet shown in Exhibit 8 is both a specification sheet and a comparative cost record of completed filters. In the first column will be entered the various parts required in assembling the filter, showing the number used and the cost each, then for each job completed, the cost will be recorded, including the cost of assembling, installing and expense, these records being obtained from the cost sheet, Exhibit 4. Provision is made for a record of three jobs on each sheet and this furnishes a comparative record the same as referred to in the record of parts.

## (746C) MANUFACTURING SYSTEM FOR MACHINE SHOP.

PURCHASE ORDER.

This form should be printed and ruled according to sample, and bound in book of 100 sheets, original, duplicate and triplicate. The original





should be sent to the individual or company from whom the goods are ordered, the duplicate should be sent to the accounting department and held on file until the invoice is received, the triplicate should remain in the book for reference and record.

This form should be made in duplicate, prepared in pads of 100 sets each and punched for binding. When the goods are received this form should be filled out by the receiving clerk, and the original and duplicate sent to the accounting department. The duplicate should be attached to the purchase order, and the original should be filed numerically after being priced. The receiving clerk should sign sheet, stating the date goods were received. The date of invoice should also appear on this sheet as well as the purchase order number, and the party entering should sign this sheet.

Material Received Sheet No.____

Favor of_____ Purchase Order No.____

| | Articles | Quantity | Rate | Amount |
|---|---|---|---|---|
| | | | | |

Date Received_____ Date of Invoice_____

Received By_____ Entered By_____

FORM 1.

MATERIAL REQUISITION.

This form should be ruled and printed according to sample, and prepared in pads of 100 sheets each. When the material is required for certain orders the superintendent should authorize the stock clerk to deliver the articles required to the operating department on this requisition which should be signed by the superintendent. The requisition should then be handed to the stock

John Doe Company
Purchase Order No.____

Name_____ Terms_____ Wilmington, Del._____

Address_____ Ship via_____ Delivery F.O.B._____

| Date Required | Articles | Quantity | Price | Amount |
|---|---|---|---|---|
| | | | | |

You are hereby authorized to fill the above order as stated. If you cannot, please advise at once

John Doe Company

per_____

FORM 2.

clerk by the individual receiving the goods, who should also sign this requisition. At the end of the day the stock clerk should hand in to the office all requisitions, and no material should be delivered to operators unless authorized by the superintendent or foreman. This requisition should be filed numerically in a binder for that purpose.

Material Requisition No._____
Date_____ Order No._____

| | Articles | Quantity | Price | Amount |
|---|---|---|---|---|
| | | | | |

Received By _____ Authorized By _____
Name Foreman

FORM 3.

STOCK SHEET (RAW MATERIAL).

This form should be ruled and printed on both sides according to sample and punched for binding. A separate sheet should be used for each article. In the upper left hand corner are the words "Maximum" and "Minimum," which refer to the maximum and minimum amount of each article to be carried in stock, and is intended to regulate purchases. The information called for under the caption "Ordered" can be obtained from the Purchase Order Book, which should be posted daily. The information called for under caption "Received" can be obtained from the Material Received Sheets, which should be entered daily. The information called for under the caption "Delivered" can be obtained from the Material Requisitions, which should be posted daily.

Stock
Raw Material
Article
Classification No._____
Sheet No._____
Maximum_____
Minimum_____

| | Date | Ordered | | | | | | Received | | | | Delivered | | | | Balance | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Purchase Order Number | Delivery | Terms | Dis. | Price | Quantity | Material Received Sheet No. | Quantity | Price | Amt | Material Requisition Number | Quantity | Rate | Amt | Quantity | Rate | Amt |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

FORM 4.





Time Card Date_____
Name_____ Check No._____

| Order No. | Article | Operation | Time | | | Quantity | Cost | |
|---|---|---|---|---|---|---|---|---|
| | | | Began | Finished | Hours | | Rate | Amount |
| | | | | | | | | |

Approved
Foreman

ORM 6.

The information called for under the caption "Balances" represents the difference between the column headed "Received" and the column headed "Delivered," and should show the quantity of each article on hand, as well as the cost. The difference between the column headed "Ordered" and the column headed "Received" will represent the goods ordered but not received.

PRODUCTION ORDER.

This form should be ruled and printed according to sample, and made in duplicate and bound in a book of 100 sets each. The order should be made out for all goods ordered from the factory, and no work done unless authorized by the manager. This order represents the authority to manufacture goods, and will enable the manager to require a fixed amount of work from the factory daily. All count of material used should be charged against the order issued by

Order No._____ Production Order Finished {Parts / Product No._____ Date_____

| Date Required | | Articles | Quantity | Rate | Amount |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | Same form for finished product, eliminating the word parts. | | | |
| | | | | | |
| | | | | | |

You are hereby authorized to manufacture the above articles
You will be held responsible for defective work
Manager

FORM 5.

the office. A separate order should be issued for each article. When the order is completed and delivered to the storeroom, this form should be returned to the office together with the Production Report, showing the production for the day. The number of the Production Report should be entered on this order. The duplicate remaining in the book is for the purpose of stating the cost of each order issued. When the order is closed the original should be ruled off, the Production Report number entered, showing where and when the articles were completed.

### TIME CARD.

This form should be made of manilla tag board, and printed according to sample. The Time Card should be made out by the employes showing the nature of the work and the actual time consumed on each order, as well as on each operation. The production of each machine should be inspected and counted after each operation and the count entered on the time card, which should then be handed into the office for reference and record.

### COST SHEET.

This form should be ruled and printed according to sample, and punched for binding. A separate sheet should be used for each order. This sheet should be started from the entry records of the Production Order Book showing the articles ordered from the factory. The information called for under the caption "Labor" can be obtained from the Time Card. The information called for under the caption "Materials" can be obtained from the "Material Requisitions." The material called for under the caption "Indirect Expenses" represents the percentage of indirect expenses added to the cost of each order, which should be figured on the basis of direct labor. The indirect expenses consist of indirect labor and all other accounts shown on the classification of accounts submitted under the general caption "Indirect Expenses." The addition of these accounts divided by direct labor should give the percentage of indirect expenses by distributing over the production for the month on the basis of direct labor. The average of the indirect expenses should be taken as a basis after the costs have been obtained for the first month. The total cost represents the addition of the three columns mentioned. All posting to this sheet should be done daily.

### PRODUCTION REPORTS (FINISHED PRODUCTS).

This form should be prepared in pads of 100 sheets, punched for binding, and should be ruled and printed according to sample. The report should be filled out daily by the superintendent or foreman, and should be sent to stockroom, together with the production of the factory for the day. The store clerk should sign this report when the goods are received in good condition, and should then hand this report into the office in order that the costs may be entered, and rate figured, which can be obtained from the cost sheet for the orders completed on this Production Report. The number of the Production Report





should be entered as previously stated on the cost sheet, which should be ruled off and filed as completed orders.

### PRODUCTION REPORT (FINISHED PARTS.)

This form should be ruled and printed according to sample, and prepared in pads of 100 sheets, and punched for binding. This report should be handled in substantially the same way as the preceding report, excepting that the production of each operation should be inspected and counted in order that any defective work or waste of material may be prevented.

### INVOICE AND SALES SHEETS.

This form should be ruled and printed according to sample, prepared in pads of 100 sheets, original, duplicate and triplicate. When an order is received either by telephone, mail or otherwise, this form should be filled out; the original filed away alphabetically as future orders and a duplicate should be handed to the shipping clerk, which represents his authority to ship the goods when completed. The triplicate should be sent to the main office. When the goods are shipped the shipping clerk should return the duplicate, showing the date shipped and the article shipped, and all particulars called for by this form. The original filed away as an order should then be dated and sent to customer, which will then represent a bill instead of an order. The duplicate should be priced and the cost entered and figured, and will then represent the sales sheet, which will be filed numerically in the binder provided for that purpose. All posting of the stock sheet should be made on this form, which should also be entered on the Register of Sales and Costs, the amounts being charged to the individual or company to whom the goods were shipped and credited to the several different departments.

Costs
Finished Parts

Article

Order No.
Date Issued
Date Wanted
Production Report No.

| Date | Labor | | | | | Material | | | | | Indirect Expenses | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Operation | Check No | Quantity | Rate | Am't | Description | Requisition No. | Quantity | Rate | Am't | Am't | Am't |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Form 7.

Production Report
Finished { Parts / Product
No.
Date

| Order No. | Article | Quantity | Rate | Amount |
|---|---|---|---|---|
| | Same form for finished product, striking out the word parts | | | |

This is to certify that the above articles have been inspected and found in good condition
Inspector

This is to certify that the above articles have been received in good condition
Stock Clerk

FORM 8.

STOCK SHEET (FINISHED PRODUCT).

This form should be ruled and printed according to sample, and punched for binding. A separate sheet should be used for each article. In the upper left hand corner appear the words "Maximum" and "Minimum," which represents the maximum and minimum amount of each article to be carried in stock, which should be considered in connection with the unfilled orders as well as the balance of the stock on hand in issuing the Production Orders, authorizing the factory to produce the articles called for by this sheet. The information called for under the caption "Production" can be obtained from the Production Reports, which should be posted daily. The information called for under the caption "Orders Received" can be obtained from the orders previously mentioned and should be posted daily. The information called for under the caption "Orders Canceled" can be taken from advice received by telephone or mail, as the case may be. The information called for under the caption "Sales" can be obtained from the sales sheets and should be posted daily. The column headed "Gross Profit" will represent the difference between the selling and cost price of the goods sold, which will place all profit on a unit basis. The orders received and the orders canceled and the sales will show the quantity of each article ordered but not shipped. The form to be used should regulate production. The column headed "Balance" will represent the difference between the column headed "Production" and the column headed "Sales" at the cost price and will show the quantity and the cost of each article on hand.

STOCK SHEET FINISHED PARTS.

This form should be ruled and printed according to sample, and punched for binding. The same instructions applying to the preceding form may also be applied to this, excepting that the quantity delivered to the operation depart-





Order No.
John Doe Company
Justison Avenue
Wilmington, Del 190
Sold To
Address
Terms
Via

| Article | Quantity | Rate | Amount | Total |
|---|---|---|---|---|
| | | | | |

FORM 9.

ments should be taken from the Material Requisitions instead of the sales sheets. However, where parts have been sold the information should be taken from the sales sheets in the same manner as previously explained.

PLANT LEDGER.

This form should be ruled and printed according to sample, and punched for binding. The information called for under the caption "Costs" can be obtained from the Material Received Sheets and Time Cards of machinists. New machines or tools should be charged to regulate order number regarding all charges on the cost sheet in the same way that the product would be handled, providing that machines or tools are made in the factory. The information called for under the caption "Repairs" can be obtained from the machinists' time cards and should be posted daily for the purpose of determining the maintenance and cost of each machine or tool. This repaired work, however, refers to actual repairs but does not refer directly or indirectly to adjustments of

Order No.
John Doe Company
Justison Avenue
Wilmington Del 190
Sold To
Address
Sales Sheet No.
Order No.
Terms
Via

| Description | | Selling Price | | | Cost Price | | |
|---|---|---|---|---|---|---|---|
| Article | Quantity | Rate | Amount | Total | Rate | Amount | Total |
| | | | | | | | |

FORM 10.

Stock
Finished Product

Article _____ Sheet No. _____ Maximum _____ Minimum _____

| | Date | Production | | | | Orders Received | Orders Cancelled | Sales | | | | Cost of Sales | | Gross Profit | | Unfilled Orders | Balance | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Production Report No. | Quantity | Rate | Cost | Quantity | Quantity | Sale Sheet, No | Quantity | Price | Amt | Price | Amt | Amt | Price per | Quantity | Quantity | Rate | Amt |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

FORM 11.

any description. The information called for under the caption "Depreciation" should be based on the life of the machine or tool. The depreciation should be figured each month and charged to Depreciation of Plant and credited to Depreciation and Extinguishment Fund. The ledger, if properly kept, will represent the running inventory of your plant, which would be most valuable in the event of fire, and great care should be taken to make this record complete. The repairs on each machine should be carefully followed in order to determine the efficiency or inefficiency of the operating machine or general machinery.

## GENERAL OFFICE SYSTEM.

### REGISTER OF SALES AND COSTS.

This form should be made in a book of 200 double pages and numbered alike, bound in moleskin. The information called for under the caption "Sales" can be obtained from the sales sheets, which should be posted daily. The information called for under the caption "Cost of Sales" can be obtained from the sales sheets also. The column headed "Gross Profit" will represent the difference between the selling price and the cost price and will show the profit daily.

This book should be ruled off each month and all totals entered in ink. The total sales for the month shown in the column headed "Accounts Receivable" should be posted to the debit of accounts receivable account each month in the private ledger and the several departments credited at the selling price with the proper amounts shown by these columns. The several departments shown under the general caption "Cost of Sales" should be charged with the proper amount and the total credited to the material account.





Stock
Finished Parts

Article _____ Classification No. _____ Sheet No. _____ Maximum _____ Minimum _____

| Date | Production | | | | Delivered | | | | Sales | | | Balance | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Production Report No | Quantity | Cost per | Cost | Requisition No | Quantity | Rate per | Cost | Price per | Selling Price | Gross Profit | Quantity | Rate | Cost |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

FORM 12.

### REGISTER OF ACCOUNTS PAYABLE.

This form should be ruled and printed according to sample, and made in book form of 200 double pages numbered alike, bound in moleskin. The information called for can be obtained from the invoice, which should be entered daily. The Purchase Orders and Material Received Sheets should be attached to all invoices before being entered, which should then be filed away in an "Unpaid Bill File." When these bills are paid they should be filed alphabetically, for the present at least. This book should be ruled off and all totals entered in ink each month. The total purchases for the month should be posted to the credit of accounts payable. The columns on the right of the fancy line, in the middle of the book, should be posted to the debit of the proper account, excepting the miscellaneous column, which should be posted separately. All items appearing in this column should be posted daily. When these bills are paid the date of payment, as well as the check number, should be entered under the caption "When and How Paid."

### CASH BOOK.

This form should be ruled and printed according to sample, made in a book of 200 double pages numbered alike, bound in moleskin. This book should be ruled off and all totals entered in ink each month. The column headed "Accounts Receivable" should be posted to the credit of the accounts payable account in the private ledger. The column headed "Discount" should be posted to the debit of the discount account. The column headed "Miscellaneous" should be posted separately each day. The total receipts of the month shown in the column headed "Net Cash" should be posted to the debit of the cash account in the private ledger at the end of each month. The column headed "Accounts Payable" on the credit side of the cash book should be posted to the debit of the accounts receivable account in the private ledger, in total at the end of the month. The column headed "Discount" should be posted to the credit of discount. The column headed "Miscellaneous"

Plant

Class
Building
Room

Name No. Size Location

| Date | Cost | | | | | Repairs | | Depreciation | |
|---|---|---|---|---|---|---|---|---|---|
| | From | Description | Cost Price | Installation Charges | Total Cost | Name | Amount | Per Cent | Amount |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

FORM 13.

should be posted separately daily. The column headed "Pay Roll" should be posted to the debit of the pay roll account in the private ledger. The column headed "Deposits" on the debit side of the cash book will represent the deposits made daily, which should represent the addition of the "Net Cash" column from day to day. The column headed "Checks" on the credit side of the cash book will represent the disbursements daily. No entries should be made in this cash book from payments other than those made by check.

JOURNAL.

A regular stock ruled book will answer the purpose. The closing entries and transfers should be entered in the journal and not made in the ledger only. At the end of the month an analysis of the journal entries should be made and all amounts affecting the accounts receivable account should be posted to the debit or credit of that account in the private ledger.

ACCOUNTS RECEIVABLE LEDGER.

This ledger should be kept on the loose-leaf plan, and all accounts arranged alphabetically. All entries should be taken from either the Register of Sales and Costs, cash book or journal, excepting Returns and Allowances, which should be entered in the Register or Returns and Allowances, which is an exact duplicate of the Register of Sales and Costs, except that the postings are reversed. A trial balance should be prepared each month which would balance with the completed account kept in the private ledger.

PRIVATE LEDGER.

This form should be ruled and printed according to sample, made in a book of 300 pages numbered alike consecutively and bound in moleskin. The classification of accounts submitted should be arranged in sections as shown. This ledger will furnish a complete historical record of the business, and great care should be taken to make this record complete.





Register Accounts Payable

Credits

| Date | Voucher No. | Favor of | Terms | Ledger Folio | Accounts Payable: Open Accounts | Accounts Payable: Vouchers Payable | When and How Paid: Date | When and How Paid: Check Number |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

FORM 14.

COMPARATIVE BALANCE SHEET.

This form should be ruled and printed according to sample. The best linen ledger should be used. The information can be obtained from the private ledger.

STATEMENT OF PROFIT AND LOSS.

This form should be ruled and printed according to sample, prepared in loose sheets. All information called for can be obtained from the private ledger. The percentages called for are based on sales.

The net profit shown by this statement should be transferred to the balance sheet.

STATEMENT OF ORDERS, SALES, PRODUCTION AND COSTS.

This form should be ruled and printed according to sample. The best linen ledger should be used. The information can be obtained from the Finished Stock Records.

This statement will show how the inventory is made up and will also show the unfilled orders on hand.

Cash Receipts | Cash Disbursements

| Date | Account | Led Fol | Accounts Receivable | Private Ledger: Discr | Private Ledger: Misc | Net Cash Amount | Deposits | Binding Space | Date | Account | Voucher No | Led Fol | Gross Amount | Private Ledger: Discr | Private Ledger: Pay Roll | Private Ledger: Misc | Check No. | Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |

FORM 15.

Name Accounts Receivable Sheet No.
Address Rating
Credit Limit

| | Debits | | | | | | | | Credits | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | Description | Invoice No. | Book and Page | Settlement No. | Amount | Balance | | Balance | Amount | Settlement No. | Page | Book | Description | Date | |
| | | Brought Forward | | | | | | | | | | | | Brought Forward | | |

FORM 16.

STATEMENT OF FACTORY EXPENDITURES.

This form should be ruled and printed according to sample. The best linen ledger should be used. The information can be obtained from the private ledger.

The purpose of this statement is to show the expenditures for the month, and for the year to date.

This statement will show the nature of the expenditures, while the statement referred to will show what the inventory shown by this statement consists of, and will also show the cost of production.

Private Ledger

Account Class

| Debits | | | | | | | Credits | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Description | Book | Page | Amount | Total | Balance | Balance | Total | Amount | Page | Book | Description | Date |
| | Brought Forw'd | | | | | | | | | | | Brought Forw'd | |

FORM 17.





Comparative Balance Sheet Dated

| Assets | Current Month | Preceding Month | Increase | Decrease |
|---|---|---|---|---|
| Plant Accounts: Machinery, Machine Tools, Special and Small Tools, Factory Furniture and Fixtures, Office — Total | | | | |
| Deferred Charges: Insurance, Interest, Repairs and Improvements — Total | | | | |
| Current Assets: Cash, Notes Receivable, Accounts, Materials, Finished, In Process and Raw — Total | | | | |
| Total Assets | | | | |
| Liabilities | | | | |
| Capital Stock | | | | |
| Current Liabilities: Notes Payable, Accounts, Wages, Interest — Total | | | | |
| Dividends Payable | | | | |
| Reserve Funds: Doubtful Accounts, Depreciation and Extinguishment — Total | | | | |
| Surplus | | | | |
| Net Profit current and fiscal year to date — Total Liabilities | | | | |
| Remarks | | | | |

Statement of Profit and Loss For Month of

| Accounts | Lathes | Parts | Repairs | Total |
|---|---|---|---|---|
| Sales | | | | |
| Cost of Sales | | | | |
| Gross Profit — Percentage | | | | |
| Gross Profit — Percentage | | | | |
| Selling Expenses: Commissions, Advertising, Traveling Expenses, Freight, Express and Cartage (Outward), Incidentals — Total | | | | |
| Percentage | | | | |
| Gross Profit after deducting Selling Expenses — Percentage | | | | |
| Administrative Expenses: Salaries of General Officers, Legal Expenses, Salaries of General Office Clerks, Interest, Discount, Postage, Printing and Stationery, Telephoning and Telegraphing, Incidentals, Doubtful Accounts — Total | | | | |
| Percentage | | | | |
| Net Profit from Operating — Percentage | | | | |
| Net Profit from all Sources — Percentage | | | | |
| Remarks | | | | |

FORM 18.

CLASSIFICATION OF ACCOUNTS.

ASSETS.

I. Plant Accounts—
1 Machinery
2 Machine Tools
3 Special and Small Tools
4 Factory Furniture and Fixtures
5 Office Furniture and Fixtures
6 Patents

J. Deferred Charges—
1 Insurance
2 Interest
3 Repairs and Improvements
K. Current Assets—
1 Cash
2 Notes Receivable
3 Accounts Receivable
4 Material: Finished, In Process and Raw

LIABILITIES.

L Capital Stock.
M. Current Liabilities—
1 Notes Payable
2 Accounts Payable
3 Wages Payable
4 Interest Payable
N. Dividends Payable.
O. Reserve Funds—
1 Doubtful Accounts
2 Depreciation and Extinguishment
P. Surplus.

OPERATING ACCOUNTS.

A. Material.
B. Labor—
1 Direct
2 Indirect
3 Supervision
C. Indirect Expenses—
1 Factory Supplies
2 Freight, Express and Cartage Inward
3 Light, Heat and Power
4 Insurance
5 Repairs to Machinery
6 Repairs to Machine Tools
7 Repairs to Factory Furniture and Fixtures
8 Defective Work
9 Experimental
10 Incidentals
11 Depreciation of Plant
D. Factory—
Controlling account with Cost Ledger.
The above accounts to be closed into it at end of month.
F. Sales and Cost of Sales—
1 Machines
2 Staples
3 Repairs and Parts
F. Selling Expenses—
1 Commission
2 Advertising
3 Traveling Expenses
4 Freight, Express and Cartage Outward
5 Incidentals
G. Administrative Expenses—
1 Salaries of General Officers
2 Legal Expense





3 Salary of General Officers' Clerks
4 Interest
5 Discount
6 Postage, Printing and Stationery
7 Telegraphing and Telephoning
8 Incidentals
9 Doubtful Accounts
H. Profit and Loss

## (746D) HARNESS MANUFACTURING.

The following is a copy of a report made to a harness manufacturer.

We submit herewith our report on our recent examination in your factory. For convenience we have divided your business into three departments, viz.:

LEATHER RECEIVED

CUTTING DEPT. DATE

| LOT | WEIGHTS | LOT | WEIGHTS |
|---|---|---|---|
| | | | |

FORM 1.

Harness Manufacturing,
Collar Manufacturing,
Saddlery Manufacturing.
In this report we confine ourself to the

| Cutter No. | Date. | |
|---|---|---|
| WEIGHT | WEIGHT | WEIGHT |
| | | |

Form 2.

HARNESS MANUFACTURING DEPARTMENT.

The chief difficulty in this department seems to have been in determining the price at which leather should be charged in figuring the cost of your manufactured products. In the first place, the cost of raw leather is subject to market fluctuations but the leather purchased by you should be charged to the factory at actual cost regardless of the present condition of the market. You are not justified either in crediting the business with a profit, owing to the increase in the price of leather, nor in charging it with a loss on account





| Stock Received- {Belly Cutter / Die Cutters} Date | | | | |
|---|---|---|---|---|
| LOT | WEIGHT | WT. CUT | WT. CUT | WT. CUT |
| | | | | |
| Totals | | | | |

Form 3.

of a falling market until the goods are sold although these market fluctuations may very properly be considered in fixing selling prices. If you are now using leather for which you paid 35 cents, the fact that the same quality of leather can now be purchased for 33 cents does not change the cost of your leather.

THE CUTTING ROOM.

In the harness factory, the first problem is to determine the actual cost of the leather available for use in your manufactured products. This necessitates a record of the cost of raw leather cut and a record of the stock produced from a given quantity of raw leather.

To insure an accurate record of all leather used, no matter when pur-

MONTHLY REPORT

| | RECEIVED | | | PRODUCTION | | | | STOCK ISSUED | | | | | | ON HAND | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. Rolls | Weight | Total Cost | Cut | Bellys | Dies | Total | Orders | Cut | Bellys | Die | Total | Amount | Weight | Amount |
| 1 | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | |
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| 30 | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | |
| | Total | | | | | | | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| Issue PD | | | | |
| 1 | Total Leg Cut | Lbs. | Cost | $ |
| 2 | " Cut Stock | " | | |
| 3 | " Bellies " | " | | |
| 4 | " Die " | " | | |
| 5 | " Stock | " | " | $ |
| 6 | Add Direct Labor | | | $ |
| 7 | " Indirect | | | $ |
| 8 | " Dept. Exp. | | | $ |
| 9 | " % Gen'l Exp. | | | $ |
| 10 | Total Cost | | | $ |
| 11 | " Per lb. | | | $ |
| 12 | " Waste | Lbs. | | |
| 13 | % Cut Stock | | | |
| 14 | % Bellys | | | |
| 15 | % Die Stock | | | |
| 16 | % Waste | | | |

FORM 4.

chased, we recommend the following. When leather is purchased, give that leather a lot number, *i. e.*, "Lot A," or "Lot No. 1," and when the leather is received, stamp or mark this lot number on each roll. This lot number is for the purpose of identification and should appear on every roll whether the lot consists of one car-load or five car-loads. If it were possible to store each lot of leather so that it would positively be identified whenever used, it would not be necessary to place the lot number on the rolls but, in our opinion, the safest method will be to place an identifying mark on the rolls.

To the amount of the invoice add freight and cartage and ascertain the cost per pound delivered in your factory. Furnish the Cost Department with a record of the purchase showing quantity and the net delivered price. The Cost Department will keep this record on file to be used in pricing that particular lot of leather when used.

The first step necessary in determining the cost of your cut leather is to obtain a record of all raw leather brought into the Cutting Room. As leather is brought into the Cutting Room, it should be recorded either on card similar to Form No. 1 or in a book. This record, showing date, lot number and the weight of each roll, the latter being taken from the original weight marks, will go to the Cost Department daily.

The next step is to obtain the exact cost of stock produced. After considering several plans for obtaining this record, we have reached the conclusion that the following will give the desired information with the least labor. First, place at the end of each cutter's table a small dial scale, then require him to weigh all cut stock before it leaves his table. The bulk of his





STOCK RECEIVED-PATENT

Date

| LOT | ROLL NOS. | SIDE NOS. | AREA | COST | AMOUNT |
|---|---|---|---|---|---|
| | | | | | |
| TOTALS | | | | | |

Received By

FORM 5.

stock can be weighed once or twice each day, or whenever he finds it necessary to empty the racks, but when he cuts small pieces, which he is at present placing directly in the storage bins, he must first get the weight. The same thing is true when he delivers stock to the workman to be used on an order. The cutter will record the weights of stock on Form No. 2. This form should be on a manilla card and placed directly in front of the scale and it will probably be best to have this fastened to the table by means of a tack. A pencil should also be kept handy and fastened with a string. These cutter's cards should be delivered to him daily and returned to the Cost Department every night.

When the cutters are through with the leather, the bellies should be weighed and recorded on Form No. 3, showing total weights received at the belly cutting bench and on the same form, which may be a card, the cutter will enter the weights of stock produced and the report will go to the Cost Department daily.

The stock remaining should next be weighed when it goes to the die cutting department. This stock including heads, shanks and all scrap. For this Form No. 3 can also be used for recording both the weights of stock received and the weight of die-cut stock as it is taken from the cutting blocks. This report will also go to the Cost Department daily.

The Cost Department will next record on Form No. 4 the reports shown on the Forms No. 1, No. 2 and No. 3. The records on Form No. 1 should be entered in the "Received" column, showing number of rolls, weight, and total cost. At this point is seen the necessity of identifying by lot number the leather received in the Cutting Room for, by referring to the prices on file, the Cost Department can obtain the cost of the leather received.

O

CUTTING TICKET-PATENT

Lot No. Area
Side No. Grade
Cutter No. Date

| NO. | DIE | NO | DIE |
|---|---|---|---|
| | 1 | | |
| | 2 | | |
| | 3 | | |
| | 4 | | |
| | 5 | | |
| | 6 | | |
| | 7 | | |
| | 8 | | |
| | 9 | | |
| | 10 | | |
| | &c. | | |

FORM 6.

Next, the report of cut stock shown on Form No. 2 and the reports of stock produced by the belly cutters and die cutters, shown on Form No. 3, will be recorded in the proper columns under the head "Production" on Form No. 4, total weights only to be entered. The reports of all cutters will be combined for the day and, if deemed advisable, these daily reports can be kept and totals entered on Form No. 4 at the end of the week.

It will be noted that Form No. 4 is intended for a monthly report. At the end of the month, the "Received" column will show the total weight and cost of the leather received in the Cutting Room. It will then be necessary to weigh all uncut stock in the room. This inventory will be entered on the bottom line of the report proper and the amount carried forward to the next month's report. Deducting from the total leather received, the amount of the inventory of uncut leather, gives the total weight and cost of the leather





| Received | | | | | | MONTHLY REPORT Patent Leather | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PRODUCTION | | | DELIVERED | | | | | ON HAND | |
| Date | Lot or Grade Fd. | Roll No. | Side No. | Cost | Amount | Date | Cutter | Sq. Feet | Date | Order No. | Sq. Feet | Cost | Amount | Sq. Feet | Amount |
| | | | | | | | | | | | | | | | |
| Tot. | | | | | | | | | | | | | | | |
| Inv. Fd. | | | | | | | | | | | | | | | |

Total Stock Cut Ft. Cost $ Net Cost cut Stock (per Sq. Ft.:
" Cut Product Ft. " % Cut Stock
" Waste Ft. % Waste
Add Direct Labor $
" Indirect " $
" Expense $
" Genl. Expense % $
Total Cost $

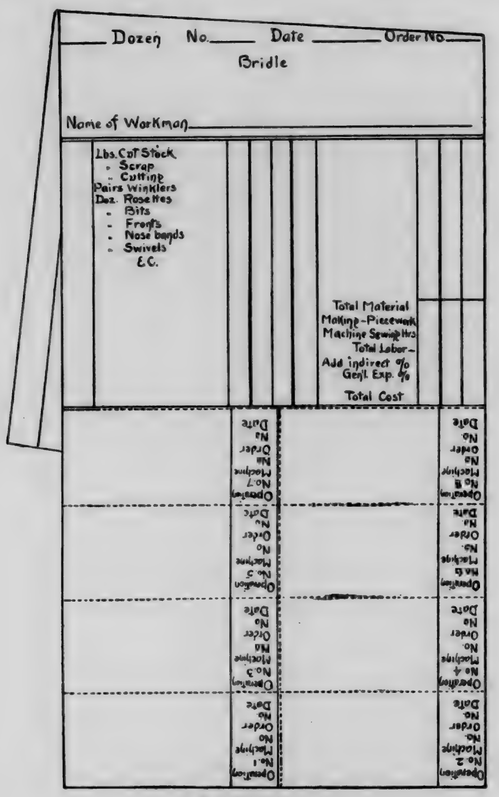
FORM 7.

cut during the month. Under the head of "Production" the footings of the first three columns will show total weights of the various classes of stock produced and the combined totals will give the weight of all stock produced from the leather cut during that month. The real cost of this stock is the cost of the leather from which it is cut, plus the labor, the departmental expense and a proper charge for general expenses. The cost per pound so obtained may be used in charging leather to jobs made during the next month.

To obtain the cost of labor for the department, we recommend arranging the names on your pay-roll by departments, separating these so that direct and indirect labor will be shown separately. By "direct labor" we mean that labor which enters directly into the manufacture of the goods, in this case being the cutters, and die cutters. The indirect labor consists of that labor which, while necessary in the operation of the room, does not enter directly into the actual work of cutting. This would include the foremen, and any porters or general laborers. The department expense would include the incidental expenses, such as repairs to tools and similar items which apply to this department alone. The general expense will consist of that portion of the general factory expense chargeable to this department. This Form No. 4 shows you not only the total production and cost per pound but the amount of waste, per cent. of various classes of stock and per cent. of waste. This is chiefly valuable for comparative purposes as it enables you to compare these percentages from month to month.

PATENT LEATHER.

The record of patent and other expensive leathers, purchased by the




FORM 8 (left-hand page).

square foot, will differ slightly from the record of harness leather. Since the area is shown on each hide, I suggest that when a roll of leather is brought into the Cutting Room, each hide should be given a number and the leather received reported to the Cost Department on Form No. 5, the cost to be figured in the Cost Department.

Then to each hide attach a tag like Form No. 6. On this tag print the numbers of the dies used in this department and have the cutter place opposite the numbers the total number of pieces cut from each die. When a hide is delivered to the cutter, he should be instructed to cut it complete so that the tag showing total production can be delivered to the Cost Department.

To ascertain the number of square feet of cut stock produced from each hide, it would seem practical to measure each die as accurately as possible and

FORM 8 (right-hand page).

keep a record of these measurements in the Cost Department to be used as a basis in figuring the cuttings from each die number.

The total shown on Form No. 5 and No. 6 will be entered by the Cost Department on Form No. 7 under the proper headings. At the end of the month the "Received" column will show the total quantity and cost of leather received, while the "Production" column will show the total production. The net cost per square foot will then be ascertained in the same manner as the cost per pound for harness leather is obtained on Form No. 4.

### RECORDS OF MATERIAL ISSUED.

An essential feature of balance systems of Cost Accounting is an accurate record of all material issued for use on manufacturing orders. At present the material, both leather and hardware, is recorded on a job card

HDW. STOCK

Month _____ 190_

| Day | RECEIVED Date Invoice | From | Amount | Day | ISSUED Order No. | Amount | BALANCE Amount |
|---|---|---|---|---|---|---|---|
| Fd. | | | | | | | |
| 1 | | | | 1 | | | |
| 2 | | | | 2 | | | |
| 3 | | | | 3 | | | |
| 4 | | | | 4 | | | |
| 5 | | | | 5 | | | |
| 6 | | | | 6 | | | |
| 7 | | | | 7 | | | |
| 8 | | | | 8 | | | |
| 9 | | | | 9 | | | |
| 10 | | | | 10 | | | |
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| 27 | | | | 27 | | | |
| 28 | | | | 28 | | | |
| 29 | | | | 29 | | | |
| 30 | | | | 30 | | | |
| 31 | | | | 31 | | | |
| Totals | | | | | | | |
| | | | | Fd. | | | |

FORM 9.

but the Cost Department has no record of this material until the job is completed and the card returned to office. To give the Cost Department at all times a complete record of material issued on uncompleted orders, we recommend making the order card in duplicate as shown by Form No. 8, using a tough manilla stock sufficiently thin to take a carbon duplicate.

The face of both the original and duplicate orders will show what hardware is used on the job, this information being obtained from specifications on file in the Cost Department. When the cut stock is issued from the stock in the Cutting Room, the weights will be entered in duplicate on the back of the order and the short sheet detached for use in the Cost Department. This short sheet gives the Cost Department a copy of every order and a record of the material issued.

We understand that a record of leather stock issued is now kept for each job. This record should also be made on Form No. 4. To avoid duplication





HARNESS MANUFACTURING LABOR

Labor for Month

| | Direct | Indirect | Total | COMPLETED Order | Direct | Indirect | UNCOMPLETED Direct | Indirect | Order |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
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| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |
| Totals | | | | | | | | | |

FORM 10.

of labor, the record may be made when the job is completed and may be taken when the stock is entered in your present weight book. The record of stock issued on completed orders may be entered on this report, either daily or weekly. At the end of the month, however, it will be necessary to compute the amount and value of stock issued on orders still uncompleted. This amount should be entered as one item at the bottom of Form No. 4 in *red ink* to distinguish it from completed orders and the orders themselves should be stamped accordingly, indicating that the stock has been entered.

### HARDWARE STOCK RECORDS.

There should also be maintained a record of the hardware stock and, in view of the difficulties involved in maintaining a really complete stock record system, we suggest the use of such a stock record as is shown by Form No. 9, this being a combined record of the entire hardware stock.

| Dr. | | | | | | MATERIAL-(LEATHER) | | | | | Cr. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan 31 | To Purchases | | 10648 | 22 | Jan 31 | By Leather to Cutting Room (Form 3) | | | 4672 | 40 |
| | | | | | | " Fur " " " " (Form 7) | | | 767 | 38 |
| | | | | | | (Balance represents raw leather on hand) | | | 5439 | 78 |
| | | | | | | LABOR-CUTTING ROOM | | | | |
| | To Pay Roll-Direct | | 1504 | 30 | | By Manufacturing Account (Direct) | | | 1504 | 30 |
| | " " -Indirect | | 194 | 20 | | " " Indirect | | | 194 | 20 |
| | | | | | | GENERAL EXPENSE | | | | |
| | To Exp. for Month including depreciation & Maintenance | | 135 | 43 | | By Mfg % 10% | | | 150 | 43 |
| | | | | | | Balance-$15.43 represents over distribution on months jobs next month use 9% | | | | |
| | | | | | | MANUFACTURING % | | | | |
| | To Material (Lea. Rec'd) | | 5439 | 78 | | By Cut Stock (Reports 267) | | | 7146 | 20 |
| | " Labor (Direct) | | 1504 | 30 | | Balance represents uncut leather in cutting room | | | | |
| | " " Indirect | | 194 | 20 | | | | | | |
| | " Expense 10% | | 150 | 43 | | | | | | |

FORM 11.

In the "Received" column, will be entered the purchases when received, adding to the invoice the cost of freight and cartage; and in the "Issued" column will be entered the hardware stock issued on orders.

Your goods are mainly standard, *i. e.*, a bridle of a given number is made on certain specifications which do not vary. The hardware to be used on that bridle is a known quantity, consequently it is a simple matter to figure the total cost of hardware on one or one hundred bridles. If you have completed a certain number of bridles in a day or a week, it involves but a little clerical labor to ascertain the total cost of hardware. The same is true of any other article.

When you make a bridle or other article, involving a change in specifications, you will naturally wish to figure the cost on this individual order very accurately so that you may know that the salesman has obtained the proper price for the special article. The cost of hardware on these special jobs will, of course, be included with the regular jobs, the object being to obtain an accurate record of all hardware issued.

In entering the hardware issues on Form No. 9, follow the same plan as with the leather, *i. e.*, enter hardware on completed orders until the end of the month and then enter the amount issued on uncompleted orders in *red ink* and stamp duplicate orders accordingly.

### LABOR RECORDS.

Another very important feature of balance systems is a record of the labor performed from day to day. At present a large number of your operatives are on piece-work basis and we understand that you are obtaining complete records of piece-work weekly for the purpose of making up the pay-roll.





| Dr | | | | | | MATERIAL % | | | | | Cr. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | To Cut Stock Cutting Room Mfg % | | 7146 | 20 | | By Mfg % - Stock Issued on order Forms 267 | | | 6722 | 40 |
| | To Hdw Purchases | | 2672 | 80 | | " Hdw issued on orders | | | 847 | 60 |
| | | | | | | LABOR | | | | |
| | To pay Roll (Direct) | | | | | By Mfg % (Direct Labor-Pay Roll) | | | | |
| | " " " (Indirect) | | | | | " " % (Indirect - 15%) | | | | |
| | | | | | | Balance representing over or under distribution of indirect Labor to be adjusted next month | | | | |
| | | | | | | GEN'L. EXPENSE | | | | |
| | To Exp. for month including depreciation & maintenance | | | | | By Mfg % ?% | | | | |
| | | | | | | Balance represents over or under distribution to be adjusted next month | | | | |
| | | | | | | MANUFACTURING % | | | | |
| | To Material issued (Forms 279) | | 75% | | | By Finished Goods | | | | |
| | " Labor (Direct) | | | | | Balance represents uncompleted goods in factory at their true cost to date | | | | |
| | " " (Indirect 15%) | | | | | | | | | |
| | " Expense (7%) | | | | | | | | | |
| | | | | | | FINISHED GOODS | | | | |
| | To Manufacturing % | | | | | By Sales (at cost) | | | | |

FORM 12.

To permit of a record of the time required for machine-sewing and any other day labor on a job after leaving the Cutting Room, we have provided a series of coupons on the bottom of the shop order, Form No. 8. These coupons are numbered to correspond with the operations required and the time of each operation is to be recorded by the foreman, preferably with some mechanical time-recording device like the Calculagraph. As soon as an operation is completed, the coupon representing that operation should be detached and placed in a box by the foreman. These coupons should be delivered to the Cost Department daily where they will be sorted according to job numbers When the job is completed, the cost of machine labor is obtained from the coupons. The piece-work costs can be obtained as at present.

If you do not deem it advisable to figure the cost of labor on each job individually, the labor can be grouped for the month on a report similar to those shown for materials. We believe, however, that you will find it to your advantage to figure exact costs on a certain per cent. of the jobs of different classes each month and to record these on cost sheets for comparative purposes.

For the monthly labor report, use Form No. 10. Enter first the amount of the pay-roll, divided into direct and indirect labor. On completed orders, enter the cost of direct and indirect labor, grouping the orders if necessary and posting weekly. At the end of the month, enter the labor on uncompleted orders in the proper columns, making the necessary notations on shop orders and time coupons so that the same labor will not be again entered in

the following month's report. In figuring indirect labor on orders completed during the month, a percentage basis is to be used as explained later.

A record of the cost of orders completed during the month is necessary. This is obtained by combining the following items:

1st, Cost of leather stock issued on completed orders.....Form No. 4
2nd, Cost of patent leather stock issued on completed orders...Form No. 7
3rd, Cost of hardware issued on completed orders.....Form No. 9
4th, Cost of labor on completed orders .....Form No 10
5th, Add the per cent. previously determined for general expenses.

This will explain the reason for entering material issued on uncompleted orders in *red ink,* as it leaves the material issued on the completed orders by itself on the reports.

In the second and succeeding months it will be necessary to add to items 1, 2, 3 and 4, the cost of the same items on orders issued in a previous month but completed during the current month. The uncompleted orders are represented by the red figures and, as they are completed, the cost must be taken into consideration in figuring the total cost of all orders completed during the current month. These items will be obtained from the orders themselves as fast as they are completed and can be tabulated from day to day, giving the total at the end of the month.



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# American Business and Accounting Encyclopedia

*REVISED EDITION*

A Standard Reference Book for Accountants and Business Men, profusely illustrated with hundreds of special forms and plates

VOL. V.

COMPLETE IN SIX VOLUMES

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For the purpose of obtaining the cost of individual orders as they come through the factory, we add the unknown items on a percentage basis. If proper time records are kept, it is possible to obtain the exact cost of direct labor on any individual order and the total cost of direct labor charged to individual jobs should agree with the direct labor as shown by the pay-roll. If these amounts do not agree, it necessarily follows that either an accurate record of time spent on each job has not been kept, or that you are paying for a certain amount of waste time. In either case, the discrepancy should be charged as indirect labor. In charging indirect labor to individual jobs, the accepted method is to base this on a percentage of indirect to direct labor, *i. e.*, if the direct labor in the previous month was $1,000.00 and the indirect labor, $100.00, there should be added to each job 10 per cent. of the cost of direct labor to cover this item of indirect labor.

General manufacturing expense, such as taxes, insurance, heating, light and power, superintendence, plant maintenance, and depreciation may all be grouped under the one head of "General Expense" or treated separately, but in either event should also be charged against individual jobs on a basis of the per cent. of expense to direct labor.

### CONTROLLING ACCOUNTS.

We have divided the harness factory proper into two sub-departments, *i. e.*, Cutting Department (to determine the actual cost of cut stock), and Harness Manufacture.

In the Cutting Department the controlling accounts required are as shown below.

Dr. MATERIAL-(LEATHER) Cr.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Jan 31 | To Purchases | 10648 | 22 | Jan 31 | By Leather To Cutting Room (Form 2) | 4672 | 40 |
| | | | | | " " " " (Form 7) | 767 | 38 |
| | | | | | (Balance represents raw leather on hand) | 5439 | 78 |

LABOR-CUTTING ROOM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | To Pay Roll-Direct | 1504 | 30 | | By Manufacturing Account (Direct) | 1504 | 30 |
| | " " -Indirect | 194 | 20 | | " Indirect | 194 | 20 |

GENERAL EXPENSE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | To Exp. for Month including depreciation & Maintenance | 135 | 43 | | By Mfg A/c 10% | 150 | 43 |
| | | | | | Balance-$15.00 represents over distribution on months jobs next month use 9% | | |

MANUFACTURING A/c

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | To Material (Lea Recd) | 5439 | 78 | | By Cut Stock (Reports 267) | 7146 | 20 |
| | " Labor (Direct) | 1504 | 30 | | Balance represents uncut leather in cutting room | | |
| | " " Indirect | 194 | 20 | | | | |
| | " Expense 10% | 150 | 43 | | | | |

In the Harness Manufacturing Department the controlling accounts required will be as shown below.

Dr — MATERIAL % — Cr

| | | | | | |
|---|---|---|---|---|---|
| To Cut Stock Cutting Room Mfg % | 7146 | 20 | By Mfg % - Stock issued on order Forms 267 | 6722 | 40 |
| To Hdw Purchases | 2672 | 80 | - Hdw issued on orders | 847 | 60 |

LABOR

| | | | | | |
|---|---|---|---|---|---|
| To pay Roll (Direct) | | | By Mfg % (Direct Labor-Pay Rol) | | |
| - - - (Indirect) | | | % (Indirect - 15%) | | |
| | | | Balance representing over or under distribution of indirect Labor to be adjusted next month | | |

GEN'L EXPENSE

| | | | | | |
|---|---|---|---|---|---|
| To Exp. for month including depreciation & maintenance | | | By Mfg % ?% | | |
| | | | Balance represents over or under distribution to be adjusted next month | | |

MANUFACTURING %

| | | | | | |
|---|---|---|---|---|---|
| To Material issued (Forms 274) | 7570 | | By Finished goods | | |
| - Labor (Direct) | | | Balance represents uncompleted goods in factory at their true cost to date | | |
| - - (Indirect 15%) | | | | | |
| - Expense (7%) | | | | | |

FINISHED GOODS

| | | | | | |
|---|---|---|---|---|---|
| To Manufacturing % | | | By Sales (at cost) | | |

Referring to these departmental controlling accounts, it will be seen that in the labor and expense accounts provision is made for a balance to represent over or under distribution of indirect labor and expense. Since you are using the percentages based on the actual experience of the preceding month for the purpose of figuring cost of jobs completed during the current month, slight differences will be shown when this month's indirect labor and expense is ascertained.

Indirect labor and general factory expense are, to a large extent, fixed items, but the percentage of expense to direct labor will vary with variations in production. As an example, if every machine in your machine-sewing department is running on full time, the cost of indirect labor and expense will be practically the same as it would be if one-third of those machines were idle. In the first case the production, and consequently the expense for direct labor, will be greater than it would be in the latter case and this will result in a corresponding decrease in the percentage of expense.

If you were to wait until the end of the month before figuring the cost of that month's completed orders, the total indirect labor and expense would be apportioned among the different jobs and there would be no balances, but by using the previous month's percentages you can ascertain the cost of individual jobs very accurately as soon as completed and any slight differences, one way or the other, would be shown in the controlling accounts at the end of the month. These differences will be adjusted during the next month by increasing or decreasing the percentage used. To illustrate, we will suppose





that last month showed total indirect labor and expenses equal to 40 per cent. of the direct labor charge. At the end of the present month we find that these items figure but 39 per cent. Since you have used the 40 per cent. basis, you will have distributed too large an amount on the current month's jobs and to adjust this difference, you will make a corresponding reduction in the percentage to be used next month.

(746E) The following distribution of accounts is in connection with a large machinery manufacturing business making its own castings.

PRODUCTION DEPARTMENT.

General Foundry Dept.

1. Iron and Coke Charged.
2. Breaking, Hoisting and Charging.
3. Cupola Expense.
4. Casting.
5. Coremaking.
6. Moulding.
7. Helping Moulders.
8. Flasks (up keep of).
9. Foundry Expense.
10. Foundry Facing, Blacking—material and labor making.
11.
12. Cleaning Castings.
13. Loading Castings.
14.
15. Productive Sales.
16. Non-productive Sales.
17.
18.

Pipe Foundry Dept.—

19. Brass Foundry Expense.
20. Brass Foundry Production.
21.
22. Iron Mixture.
23. Pipe Cores.
24. Pipe Moulding, Helping and Casting (labor of manufacture).
25. Pipe Cleaning, Dipping, Testing and Weighing.
26. Pipe Expense.
27. Pipe Productive Sales.
28. Pipe Non-productive Sales.
29. Loading and Shipping—Pipe.
30. Pipe Flasks.

Machine Shop Dept.—

31. Machine Shop and Toolroom Expense.
32.
33. Machine Shop Productive Sales.
34. Machine Shop Non-productive Sales.
35.
36.

Blacksmith Shop Dept.—
37. Blacksmith Shop Expense.
38. Blacksmith Shop Productive Sales.
39. Blacksmith Shop Non-productive Sales.
40.
41.

Pattern Shop Dept.—
42. Pattern Shop Expense.
43. Standards—All standard patterns.
44. Patterns—Patterns belonging to customers.
45. Pattern Shop Productive Sales.
46. Pattern Shop Non-productive Sales.
47. Miscellaneous Pattern Expense.

Miscellaneous Productive Sales—
48. Miscellaneous Productive Sales.

NON-PRODUCTIVE DEPARTMENT.

General Expense—
49. Office Salaries.
50. Office Expense.
51. Engineering Department.
52. Soliciting Expense.
53. Legal.
54. Advertising.
55. Water.
56. Taxes.
57. Insurance.
58. Interest and Exchange.
59. Sundry General Expense.
60. Discounts.
61.
62.

Plant Maintenance—
63. Watchman.
64. Stable.
65. Engine and Boiler.
66. Electrical.
67. Yard.
68. Buildings.
69. Oils.
70. Sundry Plant Maintenance.
71.

Materials—
72. Wood.
73. Coal.
74. Coke.
75. Pig Iron.
76. Scrap and Sales.
77. Scrap (metals) and Sales.
78. Lumber and Sales.
79. Merchandise and Sales.
80. Babbitt and Sales.
81. Blacksmith Coal and Sales.
82.
83.





84. Capital Stock.
85. Capital Stock Discount.
86. Real Estate and Improvements.
87. Horses and Wagon Property.
88. Tools, Machinery, Crane and Cupola.
89. Flasks (stock).

Corporation Accounts—
90. Bills Receivable.
91. Bills Payable.
92. Cash.
93. Dividends.
94. Office Furniture and Fixtures.
95. Pay Roll.
96. Freight.
97. Vouchers.
98. Experimental.
99. Betterments.
100. Productive Sales.
101. Non-productive Sales.
102. Sundry Cash.
103. Royalties.
104. Profit and Loss.

(746F) In steel industries we find a classification as below illustrated:

MATERIAL OR BOOK INVENTORY ACCOUNTS.

Pig Iron—
(a) Low Phosphorus Pig Iron.
(Below .04 in phosphorus and sulphur.)
(b) Standard Basic Pig Iron.
(Sulphur under .05 per cent.)
(Phosphorus under .08 per cent.)
(Silicon under 1.00 per cent.)
(c) Off Basic Pig Iron.
(Anything higher than standard.)

Scrap—
(a) Co.'s Billet Mill Scrap.
(Scraps, ends and cobbles.)
(b) Co.'s Open Hearth Furnace Scrap.
(Pit Metal, Runners, etc.)
(c) Co.'s Cold Mill Scrap.
(d) Co.'s Hat Mill Scrap.
(e) Bought Scrap.

Ferro Manganese
Ferro Silicon
Spiegel
Aluminum
Limestone
Lime
Dolomite
Magnesite
Fire Clay
Loam (Common Dirt)
Fluor Spar
Moulds and Pit-Coatings
Silica Cement
Common Sand
Common Red Bricks
Silica Sand
Fire Bricks (Clay Bricks)
Silica Bricks
Magnesite Bricks
Runner Bricks
Silicon Spiegel
Lumber

Carborundum
Iron Ore
Chrome Ore
Bar Iron
Bar Steel
Stirring Rods and T. R.
Stoppers and Nozzles
Gas Coal
Steam Coal
Smithy Coal
Ingots
Billets and Slabs
Stores and Supplies

GENERAL ACCOUNTS.

These will consist of—

1. General Ledger Current account.
2. Works Cash account.
3. General Pay Roll account.
4. Such Office and Sundry Expense accounts that it may be desired to keep, for example:
   (a) Superintendent's and manager's salaries.
   (b) Office Salaries.
   (c) Office Supplies.
   (d) Telegraph, Telephone, etc., etc.

DEPARTMENTAL MANUFACTURING ACCOUNTS.

The Departmental Manufacturing accounts which will be kept are as follows:

1. Repairs, Maintenance and Construction.
2. Discharging Coal.
3. Operating Fly.
4. Steam Generating.
5. Cost of Electricity.
6. Yard Transportation and Hauling.
7. Electric Railway.
8. Gas Producers.

(746G) In a carriage manufacturing establishment the accounts are distributed as follows:

PRODUCING.

Department—

1. Superintendent and Clerks.
2. Stock Receiving.
3. Other Non-producing.
4a. Smith Shop.
4b. Wheel Tiring.
4c. Gear Assembling.
5a. Gear Painting.
5b. Body and Seat Painting.
5c. Shaft and Pole Painting.
5d. Wheel Room Painting.
6a. Trim Shop.
6b. Top Making.
6c. Leather Cutting.
7a. Crating.
7b. Car Loading.
7c. Setting up.





7d. Repairs.
Miscellaneous.

(746H) In an electric light company the various accounts are distributed under the principal headings of:

Construction.
Manufacturing.
Maintenance.
General Expense.

Construction.
1. Land.
2. Station Buildings.
3. Motive Power.
4. Arc Apparatus.
5. Incandescent Apparatus.
6. Power Apparatus.
7. Poles and Lines.
8. Installations.
9. Conduit.
10. Cable.

Manufacturing—
11. Fuel.
12. Water Rent.
13. Oil and Waste.
14. Productive Labor.
15. Repairs of Motive Power.
16. Repairs of Electrical Apparatus.
17. Manufacturing Sundries.

Maintenance.
18. Poles and Lines.
19. Conduit and Cable.
20. Installations.
21. Motors, Transformers, etc.
22. Incandescent Lamp Renewals.
23. Arc Globes.
24. Carbons.
25. Labor.
26. Sundries.

General Expense—
27. Rents.
28. Taxes.
29. Insurance.
30. Interest.
31. Legal Expense.
32. Salaries—Office, etc.
33. Sundries.

(746I) The accounts of a steam railroad are distributed under the main headings of:

Maintenance of Way and Structures.
Maintenance of Equipment.
Conducting Transportation.
Construction.

Equipment.
General Expense.

Maintenance of Way and Structures—
1. Repairs of Roadway.
2. Renewals of Rails.
3. Renewals of Ties.
4. Repairs of Bridges and Culverts.
5. Repairs of Fences, Road Crossings, Signs and Cattle Guards.
6. Repairs of Buildings and Fixtures.
7. Repairs of Docks.
8. Repairs of Telegraph.
9. Stationery and Printing.
10. Sundries.

Maintenance of Equipment—
11. Superintendence.
12. Repairs of Locomotives.
13. Repairs of Passenger Cars.
14. Repairs of Freight Cars.
15. Repairs of Work Cars.
16. Repairs of Shop Machinery and Tools.
17. Stationery and Printing.

Conducting Transportation—
19. Superintendence.
20. Engine and Round-House Men.
21. Fuel for Locomotives.
22. Water Supplies for Locomotives.
23. Oil, Tallow and Waste for Locomotives.
24. Other Supplies for Locomotives.
25. Freight Train Service.
26. Freight Train Supplies and Expenses.
27. Passenger Train Service.
28. Passenger Train Supplies and Expenses.
29. Switchmen, Flagmen and Watchmen.
30. Telegraph Expenses.
31. Station Service.
32. Station Supplies.
33. Switching Charges.
34. Car Mileage Balance.
35. Hire of Equipment.
36. Damage and Loss of Freight Baggage.
37. Damage of Property, Including Live Stock.
38. Injuries to Persons.
39. Clearing Wrecks.
40. Operating Docks.
41. Advertising.
42. Outside Agencies.
43. Operating Marine Equipment.
44. Stock Yards and Elevators.
45. Rents of Buildings and Other Properties.
46. Stationery and Printing.
47. Operating Yards, Tracks and Terminals.
48. Sundries.
49.





General Expenses—
50. Salaries of General Officers.
51. Salaries of Clerks and Attendants.
52. General Office Expenses.
53. Insurance.
54. Law Expense.
55. Stationery and Printing.
56. Sundries.
57.
58. Pay Rolls.
59. Paymaster.
60.
61. Freight Earnings.
62. Passenger Earnings.
63. Miscellaneous Earnings.
64. Stores Department.
65. Sundries.
66.

Construction.
67. Engineering Expenses.
68. Right of Way.
69. Grading.
70. Bridges and Culverts.
71. Fences.
72. Rails and Fastenings.
73. Ties.
74. Switches and Frogs.
75. Ballastings.
76. Buildings and Furniture.
77. Docks.
78. Track Laying.
79. Fuel and Water Stations.
80. Shop, Houses and Turn Tables.
81. Cattle Guards.
82. Telegraph Line.
83. Transportation.
84. Sidings.
85. Interest, Discount and Exchange.
86. General Expense.

Equipment—

Distributed by Class.

(746J) In the business of a large shoe manufactory, the distribution is made under the headings of:

Manufacturing Accounts.
Department Expense Accounts.
Manufacturing Expense Accounts.
Leather Sorting and Distributing.
Selling Expense Accounts.
General Expense Accounts.
Merchandise Purchase Accounts.
New Construction, and Additions to Plant Accounts.

Manufacturing Accounts—
1. Special Quality.
2. Welts.
3. Turns.
4. Dorothy Dodd.
5. 3d Quality inc. Q. Q.
6. 4th and 5th Quality.

Department Expense Accounts—
7. Upper Cutting.
8. Trimmings.
9. Skivings.
10. Tongues.
11. Tip Cutting and Perforating.
12. Box Toes and Assembling.
13. Tip Stitching.
14. Lining Makers.
15. 2nd Stitching.
16. Back Strapping.
17. Pressing.
18. Stitchings—Foxings.
19. Cementing.
20. Closing On.
21. Buttonholes.
22. Vamping.
23. Samples and Singles.
24. Stock Fitting.
25. Gem Inner.
26. Upper Receiving and Assembling.
27. McKay Lasting and Stitching.
28. Turns.
29. Beating Out.
30. Nailing.
31. Last Sorting and Picking.
32. Re-lasting.
33. Welt Lasting.
34. Welt Room.
35. Goodyear Room and Stitching.
36. Heel Shaving and Randing.
37. Edge Trimming.
38. Edge Setting and Blacking.
39. Buffing.
40. Bottom Finishing.
41. Heel Finishing and Lining.
42. Ironing and Treeing.
43. Packing.

Manufacturing Expense Accounts—
44. Advertising.
45. Bad and Doubtful.
46. Collection and Exchange.
47. Depreciation.
48. Freight and Cartage.
49. General Manufacturing Expense.
50. Insurance.
51. Taxes Charged Off.





52. Office Expenses.
53. Telephone and Telegraph.
54. General Labor.
55.
56. Repairs.
57. Book-keeping Department.
58. Credit and Correspondence Department.
59. Factory Office.
60. Machine and Carpenter Shop.
61. Patterns and Lasts, Renewals and Repairs.
62. Distributing.
63. Pay Roll Department.
64. Purchasing Department.
65. Shipping Department.
66. Supply Department.
67. Sweeping Department.
68. Light, Heat and Power Operating and Maintenance.

Leather Sorting and Distributing—
69. Upper Leather.
70. Remnants.
71. Sole Leather.
72. Heels and Tops.

Selling Expense Accounts—
73. General Sales Department.
74. Retail Sales Department.
75. Traveling Salesman.
76. Chicago Office.

General Expense Accounts—
77. Administrative.
78. Printing Department.
79. Distributing Department.

Merchandise Purchase Accounts—
80. Material and Supplies.

New Construction and Additions to Plant Accounts—
81. Beating Out.
82. Dies.
83. Lasts.
84. Followers.
85. Factory Fixtures.
86. Tools and Machine—Small Tools.
87. Plant and Machinery.
88. Land and Buildings.
89. Motive Power, Electric Light Plant and Shafting.
90. Special New Additions.
91. Patterns.

(746K) In a bituminous coal mine the following classification is used, sub-divided generally under the departments of coal and coke:

COAL SECTION.

Coal Expense Accounts—
Expense of Mining.
Hauling.
Loading.
Repair to Cars.

Repair to Tracks.
Electric Light.
Entry Driving.
Rooms and Rolls.
Ventilation.
Drainage and Watering Mine.
Timber and Props.
Dead Work.
Repairing Building and Chutes.
Repairs, Machinery.
Superintendents and Clerks.
Engineering.
General Expenses.
Incidentals.
Total Expenses Mine No.
Total Expenses Mine No.

(1) Expense of Mining—
Hand Mining.
Contract Machine Mining.
Day Work Machine Mining.
Drilling, Shooting and Loading.
Loading Company Coal.
Proportion Power House Expense.
Ladders and Tool Boxes.
Running Man Trip.
Sharpening Tools.
Powder Man.
Check Man.
Wire Man.
Shot Inspectors.
Wood Pulp.
Earth Tamping.
Tamping and Powder Boxes.

(2) Hauling—
Proportion Power House Expense.
Drivers.
Outside Hoistmen.
Underground Hoistmen.
Locomotive Men.
Rope Runners.
Couplers and Spraggers.
Roller Men and Greasers.
Proportion Stable Expense.
Harness Repairs and Shoeing.
Clearing Up Wrecks.
Repairs Haulage Signals.
Cleaning Haulage Tracks.
Oil and Waste.
Roller Repairs and Renewals.
Repairing Haulage Entries.
Loss of Animals.

(3) Loading—
Outside Foreman's Salary.
Weighmen and Topmen.
Pushers and Dumpers.
Couplers and Spraggers.





Proportion Power House Expense.
Running Chute Engine.
Loading by Day Labor.
Loading by Contract.
Running and Repairing Box Car Loader.
Car Handlers.
Attendance Elevators, Screens, etc.
Cost Dummy Doors.
Unloading Dust and Yard Waste.
Cleaning Yard Tracks.
Damage to R. R. Cars and Tracks

(4) Repairs to Cars—
Repairing Wrecked Cars.
Repairing Worn Out Cars.
Replacing Lost Cars.
Replacing Wheels and Axles.

(5) Repairs to Tracks—
Hoist and Locomotive Tracks.
Ordinary Entry and Room Tracks.
Taking up Old Rails and Ties.
New Ties Used.
Track Spikes, Bolts and Fish Plates.
New Rails Used.

(6) Electric Light—
Proportion Power House Expense.
Repairs Interior Wiring.
Replacing Lamps Outside.
Replacing Lamps in Mines.

(7) Entry Driving—
Yardage in Straight Coal.
Yardage in Coal and Rock.
Yardage in Straight Rock.
Allowance for Boney Coal or Rock.
Allowance for Rolls.
Allowance for Water.

(8) Rooms and Rolls—
Rooms Turned.
Allowance for Rolls in Rooms.
Allowance for Brushing Roof.
Allowance for Boney Coal or Rock.
Allowance for Water.

(9) Ventilation—
Proportion Power House Expense.
Gas Inspectors.
Fan Expenses and Engineer.
Building and Repairing Stoppings.
Brattice Cloth and Bratticing.
Building and Repairing Mine Doors.
Trappers.
Cleaning Air Ways.
Repairing Air Ways.

(10) Drainage and Watering Mine—
Proportion Power House Expense.
Outside Pumps and Pumpmen.

Inside Pumps and Pumpmen.
Water Men and Supplies.
Ditches and Dumps.

(11) Timber and Props—
Driving Entries and Rooms.
Retimbering and Robbing Rooms.
Repairing Haulage Entries.
Repairing Air and Traveling Ways.
Unloading and Piling.
Hauling and Sawing.
Loading and Delivering.
Drawing Props.

(12) Dead Work—
Retimbering Rooms.
Regrading and Brushing Entries.
Prospecting Faults.
Loading and Hauling Rock.
Dumping and Stowing Rock.
Underground Inspection.
Watchman.
Repairing Company Tools.

(13) Repairs to Buildings and Chutes—
Main Chute and Trestle.
Crusher, Elevator and Screen Building.
Power and Boiler Houses.
Engine House.
Barn and Corral Buildings.
Boarding Houses.
Blacksmith and Machine Shops.
Other Mine Buildings.
R. R. Tracks and Mine Scales.

(14) Repairs Machinery—
Boilers and Connections.
Steam Lines.
Stationary Steam Engines.
Steam Hoisting Engines.
Electric Hoisting Engines.
Air Compressors.
Electric Generators.
Electric Locomotives.
Miscellaneous Electric Motors.
Outside Pumps.
Underground Pumps.
Outside Water Lines.
Underground Water Lines.
Outside Air Lines.
Underground Air Lines.
Outside Electric Power Lines.
Underground Electric Power Lines.
Fans and Fan Engines.
Proportion Crushers, Elevators, etc.
Tipples and Screens.
Renewal Wire Ropes.
Mining Machines.
Machinery Inspection.

(15) Superintendents and Clerks—





Proportion Gen. and Mine Supt's. Salaries.
Mine Foreman.
Mine Clerks.
Janitor Service.
Office Fixtures.

(16) Engineering—
Mine Surveyors and Assistants.
Office Supplies.
Outside Expenses.

(17) General Expenses—
Proportion Stationery and Printing.

(18) Incidentals—
Miscellaneous Teaming.
Pay Day Expenses.
Express on Money.
Free Coal.

COKE SECTION.

Coke Expense Accounts—
Superintendents and Clerks.
Crushing and Elevating.
Charging Ovens.
Burning and Drawing.
Loading Coke.
Loading Cinders.
Firing Cold Ovens.
Repairs to Coke Ovens.
Repairs to Buildings.
Coke Experiments.
Incidentals.
Total Coke Expenses.

COKE EXPENSES.

(40) Coal Used—
.... Tons at

(41) Superintendents and Clerks—
Proportion Gen. and Mine Supt's. Salaries.
Coke Oven Foreman.
Proportion Office Clerks.
Proportion Office Supplies.

(42) Engineering—
Same as Account No. 16.

(43) Charging Ovens—
Proportion Power House Expense.
Handling Coal at Bins.
Cleaning at Bins and Scales.
Weighing Charges.
Running Larry Cars.
Repairing Larry Cars and Tracks.
Repairing Motor and Power Lines.
Repairing Scales.

(44) Burning and Drawing—
Coke Pullers.
Plastering Oven Doors.

Proportion Power House Expense.
Proportion Pumping Expense.
Repairs Oven Water Line.
Repairs Tools.
Charging Hole Covers.
Watchmen.

(45) Loading Coke—
Loading R. R. Cars.
Cleaning R. R. Tracks.
Damage to R. R. Cars and Tracks.
Expense and Repairs Tools.
Watchmen.
Foreman's Wages (Proportion of).

(46) Loading Cinders—
Loading and Unloading R. R. Cars.
Hauling Away in Wagons.
Cleaning Docks.
Expense and Repairs Tools.
Proportion Stable Expense.
Foreman's Wages (Proportion of).

(47) Firing Cold Ovens—
Wood Used.
Coal Used.
Charging, Burning and Drawing.
Disposing of Cinders.

(48) Repairs to Coke Ovens—
Brick and Fire Clay.
Stone, Lime, etc.
Cast Iron Door Frames.
Repacking Ovens.
Repairs Dock Walls.

(49) Repairs to Building—
Slack Bins.
Store and Tool House.
Scale House.
Trestles and Bridges.

(50) Coke Experiments—
Preparing and Coking Coal.
Transportation on Samples.
Cost of Analysis.

Incidentals—
Pay Day Expenses.

(747) FACTORY EXPENSE DISTRIBUTION.

The following is quoted from an address made by Mr. Chas. E. Hathaway at a convention of The International Accountants' Society.

There seems to be but little difficulty in factory accounting until the problem of expense distribution is reached, and so far as direct costs are concerned there seems to be plain sailing. The debiting of production and the crediting of raw material, stock and labor is now quite a universal practice and probably understood by all; but with the next stage in cost accounts, the handling of the indirect or "overhead" expense there comes differences of opinion as to methods to be used. This subject enters into every manufacturing proposition.





The expense of manufacturing must be borne and paid for by the sales of a plant's product, and this expense must naturally become a part of the cost of production and merged into it. The first operation in tabulating cost records is of course the first or direct cost and represents cost of actual labor and material which is directly used in the production of any article of manufacture. But the whole cost of this article does not stop here. The expense of the plant incidental to its manufacture must also be considered, for the plant's product must pay for the plant's expense and if a proportionate part or share of the expense is not added to the direct cost of the manufactured article the true cost is not known. This particular article must help pay for the expense of operating the department in which it was produced and must also stand a part of the general expense of the whole plant in which it is made. We cannot stop the cost with the direct charges and limit to this, and say this is the cost to manufacture.

Up to this point the actual cost to manufacture is positively known, but in figuring the amount of factory and general expense to be added to first cost our estimating begins. The manufacturer and his accountant are confronted with the question, "How much of the expense account to carry on my business must this particular article pay?" And the question is before us today, how much of this expense to manufacture is to be added to the direct cost of production, how shall we arrive at the proper amount and what is the best method to be adopted in the calculation of it.

There are three ways which may be used to systematically dispose of manufacturing expense over production; the "man-hour" plan so-called, the "machine-hour" plan and the "percentage" method. All these different methods have had their advocates, but in most plants there are conditions which absolutely prohibit the adoption of at least one of these methods, and the accountant after studying the situation carefully is forced to select one of the other two methods. The plan which would appeal to one manufacturer would be thrown down by another as not applicable to conditions as they exist in his factory.

Let us bring all three methods together and see if it is not possible to select one which comes the nearest to filling the general conditions of regular factory practice with the least unnecessary detail and expense to operate and at the same time give satisfactory results.

It is assumed at the outset that the books of the company show the operating of each department, the general expense of the whole plant, offices, administration, etc., and the productive labor of each department as well as for the whole plant. It should also be borne in mind as already outlined, that the direct cost of any piece of productive work should share part of the expense of the department doing the work and is of necessity operated that the article can be manufactured, and also share in the administrative or non-productive expense of the organization necessary to operate and administer the business end of the industry established to undertake the manufacture of this same article for pecuniary profit. This brings us to the starting point, and we can safely assert that in addition to the direct cost our cost record should

show two more items:

1st—Departmental expense.

2nd—General expense.

and the question is now simply what method should be used in transferring this expense into the cost of production.

Let us first consider

THE MAN-HOUR PLAN.

This scheme for distributing expense was one of the first methods used, but has in most shops now been discarded. While there are possibly a few factories, comparatively speaking, still using the old plan, it is quite probable it has been outgrown by all up-to-date plants.

The general plan of its operation is quickly understood. The expense is calculated on the time spent on production, and not on the cost of labor which entered into the production, and the distribution of the expense is reduced to a man-hour rate as the very name of the method implies. An article on which 54 hours was spent at a cost of $21, bore no more of the factory expense than a job of the same number of hours which cost only $5. It made no difference whether the article was worked on by a skilled mechanic or by an apprentice boy, the expense to be borne by the job was the same, the calculation being made simply on time spent. It is apparent that this is hardly a fair proposition. It is true if it were possible to employ a uniform class of labor so that a fixed standard could be established and at the same time keep the force about the same in number during the year so that a calculation could be made and a number of hours adopted as the standard work-hours for a year, this man-hour plan might make good. But these conditions are seldom found today in a manufacturing plant. The force is increased or decreased at different seasons to the demands of production, and of necessity there must be a different wage for different trades or for the ability and experience of workmen in the same trade. Under this plan a skilled workman, an inferior workman, helper or apprentice boy are all on a par, and on a job where each worked the same time there would be the same expense added in each case. This is manifestly unfair. The amount of capital furnished by the company to pay for the labor which entered into the production of an article was ignored.

To correctly solve the problem under the man-hour plan various adjustments must be made, and it is noted at the outset that the very essentials cannot be accurately calculated and are purely estimates which may or may not work out in practice, with no assurance that conditions will continue even on the basis estimated. In addition to estimating and adopting a given number of productive hours as the standard for, say, a year's work, to make the man-hour plan an equitable means of figuring expense would require the adoption of a standard of efficiency for the labor; either the apprentice should be adopted as standard and the skilled mechanic considered as, say, twice or three times the value of the apprentice's quantity of production for an hour, or vice versa. This would require in making up the cost record a statement of what men worked on the job so that their efficiency in work-hours could





be established, the total of which would be the basis on which the expense was to be apportioned. It is apparent that such a condition as this would lead to endless complications. Without such an adjustment the cost as shown would be a very unfair statement and the calculation of the expense quite an impossible undertaking.

To further complicate matters it is apparent that an average man-hour rate for the whole plant will not do even if calculated. Each department of the plant should have its own rate. It is obvious that productive work done in a department operated at a high rate of expense would under these conditions be charged with expense figured on the plant's average rate which might fall far below the actual rate for the department which did the work, and the cost of the job would not be correctly shown.

Again it is noted that although the dollars and cents cost of the labor which enters into any and every article may be known, under the man-hour plan the labor cost of itself is absolutely worthless in calculating the proportionate expense to be borne by any particular job. Although the sum total of all the individual labor items must of necessity balance out the labor account in the ledger and represent the total amount of productive pay roll, we are just as far from knowing the amount of the manufacturing expense or indirect charge to be added to the first cost as we would be without the labor cost at all. The labor cost does not help us in the least in calculating the expense. It will be remembered that the man-hour plan deals with the time spent on the job and not on the cost of the direct labor. In addition to the labor cost the hours spent on every piece of job work must be carefully recorded and totaled. In other words two sets of figures are required, the labor cost and the hours spent and either one is worthless without the other. The hours after being calculated are not used in the general books, and in this respect is an unnecessary operation and waste of time, and the bigger the plant the more the detail and time that must be spent by the cost department in its calculation, and in a large plant this would be quite an undertaking. It is extremely doubtful if many plants would care for these statistics at the cost which would be required to collect, calculate and tabulate them.

By the man-hour method only one amount needed in the calculation is actually known—the total amount to be distributed—all other amounts and quantities must be estimated. There seems to be no positive starting point.

I have cited only a few objections, sufficient, however, to show some of the disadvantages of the man-hour plan. Others would be discovered in actual practice. Any method in business today which means unnecessary labor and duplication of work, especially when accompanied by unsatisfactory results must be discarded for something simpler and more efficient. This has evidently proved the experience of most concerns who have used the man-hour method, for it seems to be a fact that it has been practically abandoned and is probably not used by any up-to-date plant at present, the direct labor method having been found far more satisfactory.

THE MACHINE-HOUR METHOD.

Somewhat similar in its detail to what we have been considering is the machine-hour method of expense distribution. The name itself suggests its intent, which is to use the time spent by machine as the basis for handling the expense. In this respect it closely resembles the man-hour plan and is quite similar in its method of computation and operation. This method is intended for use in machine works or shops where most of the work done is by machines the smaller amount being done by floor labor. It is obvious that this method could not be considered at all for a pattern shop, blacksmith shop or paint shop, or in fact in any department where there is little or no machinery and where the labor is performed mostly by hand. Its object is therefore to reduce the rate of distributing expense to an hourly rate for each machine working on the job.

While it is generally admitted by factory accountants that theoretically the machine-hour method is undoubtedly the correct one for a machine works, it is found on investigation and in practice to be far more complicated than the man-hour plan, and for this reason is used only by a small fraction of the very class of production it was intended to assist and for which it was planned. This plan goes even further than does the man-hour method in the estimating required, and as a well known audit company in New York City puts it, "it begins with estimating and is estimating all the way through."

It is apparent that in a machine shop as already stated there are two items which constitute the production; that done by the machine and that done by the mechanic. The machine-hour plan is intended to dispose of the expense of operating the machinery, while the productive labor of the shop must dispose of the expense of operating the shop outside of and not included in that for operating the machines. In other words there must be two items of factory expense added to the direct cost of any article of production; the machine-rate expense and the shop operating expense, and it is noted at once that they are both entirely different in their calculation. This is of course in addition to a third item representing the plant's general expense. Every calculation added means time and expense and an elaboration of system instead of simplifying it, and no manufacturing concern today cares to pay for unnecessary detail. Economy must be practiced in office as well as in shop.

One of the first features to be considered is the calculation of the power to operate each tool, which must be calculated by the plant's factory engineer or his technical assistant. This must of necessity be an estimate or based on engineering statistics which may or may not fit the conditions of operating the power house of the plant in question. The up-keep of the machine itself, its repairs and maintenance, may be closely kept, but in order to establish the total machinery expense these must in a measure also be estimated in order to form a basis on which to reduce the total expense to the hourly rate for each machine; hardly a safe basis for making any careful calculation.

The first step in calculating the rate of distributing the expense would be to establish a standard of work-hours for all tools in the shop. That this is a





difficult or in fact quite impossible accurate calculation is apparent. The time a machine will stand idle is always found to be a very uncertain quantity and makes any kind of a calculation hardly more than an intelligent guess. Who is gifted with sufficient foresight to be able to state what tools will be operated continuously for nine hours a day and which will be used but half a day for any number of months? Who can estimate with any degree of accuracy how many hours a mammoth planer representing an investment of perhaps $50,000 and used only occasionally on very heavy or bulky castings will be in operation, or even estimate the working hours of a small milling machine used only on special work and then not frequently, which the manager desires to have in the shop even if it is idle a good part of the time? This can hardly be figured and must of necessity be estimated, the same as is done in determining what shall constitute a six months' or year's work under the man-hour plan, only it is even more complicated in its calculation. Shall a machine of ordinary capacity be rated in its ability to produce on a par with another machine of the same power and expense to operate which does the work of a number of men and is of great efficiency? These are all questions which someone must decide and pass on in order that the operating expense may be divided by the operating hours of each tool, that the machine rate may be established for each machine. It takes but a moment to see the difficulty of arriving at the very fundamentals of the scheme, yet some figure must be established as standard, and it is noted that the foundation of the machine-rate plan is based on estimates and assumptions.

At the end of the period there will doubtless be found a wide difference between the actual hours a machine has been in operation and the estimate made for it, which means of course that any adopted rate for the machine may work out far differently than the actual conditions have later shown the machine-rate should have been, due of course, to the unforeseen time the machine has been idle and which of necessity could not be known at the time the rate was calculated and adopted.

Starting with the machine operating cost an estimate and continuing the process of distributing the expense on a machine hour rate based on another estimate, it is not at all surprising, in fact it is to be expected that at the end of a period a very unsatisfactory distribution has taken place and the expense account is very far from being balanced.

An interesting article on machine rates appeared in a recent number of one of our popular magazines, written by a mechanical engineer. The trend of the article seemed to indicate that the mechanical man of a plant could successfully estimate these very elements which have been cited as being objections to the machine-hour method. The writer stated that the actual time a tool is likely to be used "will seldom exceed 80 per cent. of the working day," and as he further states "is likely to run down to a much lower percentage." He unconsciously admits that the time a machine will be in operation is an unknown quantity. Yet this missing or uncertain figure is the very key to the calculation of the machine rate and on which the success of the distribution depends, and according to the writer's idea has a range of operation from

80 per cent. of a working day down to absolute idleness. With such a latitude as this to build on any resulting figures could hardly be called a calculation and one guess would be just as good as another. As already stated, in a machine shop of very uniform production possibly this estimating may be done as the writer of the article claims; if so, then many of the objections usually met are partially solved, but this would hardly clear up the unfortunate objections to the method actually found in general machine shop practice.

The mere fact that the machine-hour plan is not used by a very large percentage of the very manufacturing industries it was designed and intended to benefit is quite conclusive proof that it is found wanting. As stated before, theoretically it is undoubtedly the correct method, but in practice it is not altogether a success.

### THE PERCENTAGE METHOD.

In contrast with these two plans of distributing expense is the percentage system, by which the expense is calculated not on the time spent by workman or machine, but on the money value of the direct labor. This plan seems to be generally selected by our leading public accountants and auditors and particularly those who make a specialty of factory accounting as the correct solution of the problem. So far as I am able to observe it seems to be in use by our largest manufacturing industries and I am yet to be informed of a concern using this method and finding it other than satisfactory. It is certainly the easiest method and where a double entry cost system is in use this method saves a great amount of clerical labor and consequently costs less to operate.

The recording of hours worked is entirely unnecessary and may be dispensed with, that is, so far as calculating expense is concerned. The expense is figured on the direct wages, which of necessity must be recorded for use in the commercial books of the company; no additional figures are needed than those which are readily shown on the general ledger and by the pay roll sheets. It will be seen at once that this in itself is a great labor saver, and in use of percentages which are easily figured the expense can be distributed very rapidly, and it is not surprising that the percentage method appeals to the factory accountant especially in large plants where hundreds or perhaps thousands of job orders are constantly in process and must share in the distribution.

In the ledger a factory expense account is kept and in case the plant is divided into departments an operating expense account is kept with each, into which all non-productive and expense charges of that department are charged, and the ledger accurately shows the exact cost of the expense to operate department. No need of any estimating for we know the exact amount.

If the pay roll does not show in a separate column the productive wages of each department, the amount of same may be arrived at by taking the total department roll and eliminating the labor expense items shown by the time cards or by the expense cost records for the department, and the balance will be the productive roll of the department. This is also a positive figure, no estimate. Under the percentage method of distributing expense these two figures are all that are necessary for the calculation.





The principle of the plan is now readily understood, and is that the production of each department should pay for its own operating expense; in other words the direct cost of Department A's product plus the operating expense of Department A will give the true cost of A's product. Each department is handled the same way.

To illustrate, suppose the productive labor of Department A for six months is $30,000, divided over a large number of jobs the sum total of which equals this amount. The ledger shows that the operating expense of Department A for the same time to be $6,000. It takes no reasoning to show that A's expense is one-fifth of its productive labor and if to every productive job worked on by Department A, 20 per cent. of the labor thereon is added, it is apparent that the total of all these percentage items added will equal the $6,000 shown by the ledger. If the total of all these individual expense items is credited to A's operating expense, the expense account has been wiped out and perfectly distributed, all on the basis of the actual labor cost which was expended on the article manufactured. Department B is calculated in the same manner, and it may be shown that B's productive labor is $36,000 and its operating expense is $9,000, in which case 25 per cent. should be added to all labor items of production by Department B.

It is noted that these percentages are arrived at by using the actual figures from the books without any estimating, and is a true statement of fact based on what has been the result of operations for the period considered. There is no better way to estimate for the future than by the results of the past, and it is fair to presume that unless conditions materially change that this same percentage will hold good for the near future at least, possibly for months, and in making up cost records and distributing expense monthly this same percentage can be used. By an examination of the expense account each month the result of the distribution can be readily noted, for while the percentage will nearly wipe out the account there will probably be a small balance. If a debit balance continues or materially increases for a few months after distribution has been made, it is noted that the percentage is not large enough and should be increased. If a credit balance increasing in amount is the result, the percentage used is more than enough to handle the expense and over distribution has taken place and the percentage rate should be slightly decreased.

We have been speaking of the departmental or factory expense, and it is noted that this does not include the general expense of the plant, offices, administration, taxes, etc. In addition to the operating expense of the different departments a second item must be added to cover the jobs' proportion of the general expense, for this too must be distributed over production the same as that for the department actually engaged in its manufacture. This has already been referred to and its calculation is as simple as that for the department. While there is an individual percentage for each department, the same general percentage is used by all departments and is the percentage on the total productive labor to equal the total general expense. Following the illustration used if we divide the total general expenses for the same six months used in figuring the departmental percentage by the total productive labor of all departments for the same period we arrive at the percentage required to distribute

the general expense over the items of productive labor. To illustrate again, assuming the total productive roll to be, say $450,000 and the total general expenses $150,000 the resulting percentage would be 33 1-3. The two percentages having been calculated can be adopted as standard until there are decided changes in production or expense, or both, which render it advisable to change them, and using the percentages already assumed it will be seen that the percentages to be added to all items of production by Department A would be for the department and 33 1-3 for general and for Department B 25 and 33 1-3 respectively.

The actual result of the calculation will probably be an odd figure instead of an even percentage as just shown in the illustration, and may be found to be such as 18.7, 24.1, or 32.3. If the productive work is divided over only a few jobs these actual percentages may be used without a great deal of figuring, but if there are a large number of job orders to share in the distribution, the nearest even percentage may be used, such as 20, 25 and 33 1-3, which will allow the amount of each item of expense to be figured mentally and very rapidly without interfering with a satisfactory distribution.

These are the features of the percentage method. Can anything be more simple? Its attractiveness lies in the fact that the percentages are figured on actual book figures and the element of estimating eliminated; no more calculations necessary to arrive at the percentage rates than those needed for the regular book entries; the calculation of the expense can be rapidly made, each job's share of the same being in proportion to its own labor expended thereon; it can be used in any manufacturing plant and all departments of the same plant. It is not at all surprising that this method appeals to manufacturers, factory managers, and cost accountants on account of the simplicity of the method as well as the fact that it is inexpensive to operate. The certified and chartered accountants indorse and recommend it because it is an equitable method of distribution, and in the installation of cost systems preference is now being given to it over all methods, not even excepting machine works, where the machine-hour method is undoubtedly theoretically the correct distribution, but which does not work out satisfactorily in practice. A method which appeals and proves satisfactory to the manufacturer and has the stamp of approval of our highest accounting authorities may very safely be considered a correct solution of the question of distributing factory expense.

### (748) MACHINE EXPENSE.

As in the case of labor, machines are also classified as productive and non-productive.

By productive machines are meant such as lathes, planers, drills, looms, etc. By unproductive machines are meant such as those in general use for subsidiary processes, such as cranes and grinders.

The productive machine is treated as if it were a skilled man, as though it were an operator, and this is easily accomplished by estimating the life of a machine, computing the number of working hours per year and dividing the cost of the machine by the working hours for its estimated life. This





gives the exact amount to charge against each job and also includes depreciation.

An experienced cost accountant has estimated the following items which should enter into the hourly rate chargeable for the use of a machine in a manufacturing establishment:

(1) Floor space.
(2) Interest on investment in machine.
(3) Repairs to machine.
(4) Depreciation of machine.
(5) Proportion of shafting, belting, and pulleys expense, consisting of interest on the investment, and repairs, and depreciation.
(6) Crane service.
(7) Supplies which are special to the machine.
(8) Proportion of superintendence which is special to a limited number of machines.
(9) The expense of interest, repairs, and depreciation on tools whose use is confined to the machine.
(10) Power.

It will be noted that the first item is the charge for floor space, and it is recommended that this charge should embrace the following items:

Interest on cost of land.
Interest on cost of buildings.
Expense of repairing buildings.
Charge for depreciation of buildings.
Expense of lighting and heating buildings.
Insurance and taxes on land and buildings.

The buildings do not actually cover all the land on which they stand, nor do the machines cover all the floor space of the room in which they are installed, but it is considered correct to take the total ground, or floor space, unless a part of it is used for other purposes, such as storage.

After the cost of floor space has been ascertained the present value of the machine, and its estimated remaining years of life, should be computed, and an equitable charge per hour established which would reduce the book value of the machine to 10 per cent. of its cost by the end of its estimated lifetime. By writing off the depreciation on the "reducing balances" plan the largest charges are made when the machine is most efficient.

A certain amount should be figured in to cover annual repair charges. The cost of power furnished which runs the machines should be ascertained as exactly as possible.

It is a comparatively simple matter to ascertain the cost of electric power. In most large factories a separate meter is provided for each machine.

The treatment of what is termed "idle time" is a matter for careful consideration. In our opinion, the idle time should be closed into factory general expense and pro-rated accordingly.

### (748A) MACHINERY AND BUILDING DEPRECIATION TABLES.

The following depreciation tables are known as "Montgomery's Tables." They show comparison of rate of depreciation.

(1) The original cost or value. (2) On diminishing values—required to reduce to residuary value of 10% at end of working life.

Machinery and Plant usually have a residual value at the end of "working life," which varies from 5 to 15% of the original per cent., but 10 % will be found to apply to average cases.

Great care and time have been expended in arriving at these figures, and their accuracy may be depended upon.

Many accountants are in the habit of writing depreciation off Machinery and Plant most liberally, with the consequence that at the end of fifteen or twenty years the values in the Balance Sheet are far below the actual values. These tables are not based to produce such a result but upon the actual working life in each case as closely as it can be ascertained.

### (749) SHOULD THE FACTORY MAKE A PROFIT?

The factory operations can no more show a profit and loss upon manufactured goods, than could the financial department were the fixed charges or management expenses apportioned by fixed percentage calculation on the sales as made and then claim a supposed profit or loss upon these expenditures. The very object sought by a system of cost-keeping, the exact cost of an article, would be defeated if profit or losses were allowed to a factory. Cost is cost and there can be no profit or loss unless there shall be opposed to or set against it the proceeds of sale. Suppose, for instance, a raw material, constantly fluctuating in price, increased very largely in value while on hand. After being sold, as it were, to the main office and before being disposed of, it decreased even more than the increase referred to. It might have been that this article was made up to keep the force of hands employed during a slack period in business, when there was no actual demand for the product; and thus obviating the laying off and probable loss to the plant of its skilled operators.

It should always be the factory superintendent's business to charge exactly at the original cost, and the main office, noting any fluctuations of value, could govern itself accordingly. As soon as you begin to allow the factory to make a profit you are permitting the possibility of one being claimed when none should exist, increasing the apparent cost of the manufactured article to such a price as to lose all sales.

There can be but one way to deal with an item of this sort, that is, as noted, to take a careful account of original cost irrespective of fluctuations while in the factory, and let the manager make note of any fluctuations in the finished product when selling it. In a balance sheet for inventory uses, special note, calling attention to fluctuations and making reserves for depreciation or appreciation, would be the best way to cover this.—*M. Sanger.*





### (750) BUSINESS FLUCTUATIONS.

The regular percentage governing the distribution of overhead expense is considerably complicated by fluctuations arising from business conditions and quantity of business done. There is a depression of trade and only half the workmen are employed, or an excessive number of orders are received with the result that overtime is necessary to fill them.

The following table will present an idea as to the result of such variations.

| State of Trade. | Productive Wages, Per Annum. | Hours Worked, Per Annum. | Number of Workmen. | Expenses (Direct and Indirect). Amount. | Percentage to Wages. | Per Hour. |
|---|---|---|---|---|---|---|
| Depressed (half-time).... | $ 62,500 | 600,000 | 250 | $75,000 | 120% | 12½c |
| Normal (full time)..... | 125,000 | 1,200,000 | 500 | 75,000 | 60% | 6¼c |
| Active (overtime)..... | 150,000 | 1,440,000 | 600 | 75,000 | 50% | 5⅓c |

### (751) MANUSCRIPT RECORD.

Economy of time, and the instant and convenient acquisition of desired information are as indispensable to the author, as in the office of any of our great corporations.

Card systems are fast superseding the cumbersome books and book-indexes in all progressive business houses. The reasons for this are obvious. Cards are more convenient to handle; their unfettered freedom admits of sorting into any desired form for any conceivable kind of statistics; whereas, a book would require a painfully slow and tedious analysis. A soiled card is easily replaced; not so with a soiled leaf, unless one uses the loose-leaf system. Furthermore, the card system possesses an elasticity that is unlimited.

Where have I sent this manuscript? What manuscripts have I submitted to McUnsey's? What manuscripts are "out?" are questions that constantly confront the author. Questions he wants answered,—answered with the least expenditure of energy, answered correctly and answered immediately.

The system outlined below has been tested and proven practical. The 5 x 8 size of card was found to be the most satisfactory, as it allows ample room for long titles, and the use of a dating stamp in the columns designated. The drawings are necessarily on a reduced scale.

For the story, essay, or special article:

TITLE The Blue Veil

WRITTEN Oct. 1905 CLASS Biographic NO WORDS 3000 POST. 09

| Publication | Location | Check | Sent | Returned | Published |
|---|---|---|---|---|---|
| Cattails | N.Y. | ✓ | Nov. 3 1905 | Nov. 9 1905 | ✓ |
| Brown Kitten | Boston | 20 | Nov. 11, 1905 | Jan. 1906 | Feb. 1906 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

TITLE

| Written | No. Lines | No. Verses | Post |
|---|---|---|---|

| Publication | Location | Check | Sent | Returned | Published |
|---|---|---|---|---|---|
| | | | | | |

For the poem, the caption is simply changed to read "Title."

The cards, horizontally ruled, may be had at almost any stationers. Cloth-covered, card-board cabinets, with from one to four drawers are sold very reasonably. Guide cards, properly lettered, serve to separate the manuscript cards alphabetically. Mark on the tab of one of the guide cards "out."

| KIPWELL'S | | | |
|---|---|---|---|
| 3413 W. 23 ST. | | | NEW YORK |
| Title of Manuscript | Sent | Returned | Published |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

When a manuscript is submitted, place its corresponding card behind the guide card out. This enables you to know instantly what manuscripts are out, to what publications they have been submitted, when they were sent, and the time elapsed.

On another guide card mark "accepted," or "published." In back of this file the cards corresponding to the manuscripts for which you have been satisfactorily, or otherwise, recompensed. Other ideas will suggest themselves to the interested author.

For the publication:

Duplicate entries must always be made thus, the publication on the manuscript card, and the corresponding title on the publication card. In this manner, a complete record is made; and you will have a system that will answer any pertinent question that can possibly suggest itself.—*H. E. Ising.*

### (752) MARGIN.

A term used on the Stock Exchange to designate deposits of money made to ensure the performance of a contract or to secure a broker from loss on speculative contracts entered into by him on behalf of his client for the purchase or sale of stocks, bonds, and products.

### (753) MARKET VALUE.

The selling price in open market of stocks, bonds and products for which there is a fluctuating demand or whose price is influenced by frequent variations of supply and demand.

### (754) MATURITY RECORD.

A record of due dates of accounts, usually kept for the purpose of securing cash discounts on accounts payable.

In dry goods stores of medium size, a very convenient form of combined purchase and maturity record can be arranged, specimen ruling of which we give below:

The total of the total column is credited each month to Accounts Payable account; the total of each department column is charged to the representative department account in the general ledger. The total of each maturity column

PURCHASE AND MATURITY RECORD

| Names | Date of Invoice | Terms | Total | Hats | Gloves | Hosiery | Day | January | Day | February | Day | March | Day | April | etc. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |





should agree with the Accounts Payable column in the cash book, thus providing a valuable check on same.

Purchase and Maturity Record.

| Date | No. | Names | Amount Paid | Raw Material | | | | | | Finished Material and Supplies | | | | | | | | Dating Terms | Discount | Maturity Record | | | | | | | | | | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Hides | | Furs | | Robes | | Thread | | Cottons | | Supplies | | Sundries | | | | | | | | | | | | | | | | |
| | | | | Quan. | Amt. | Quan. | Amt. | Quan. | Amt. | Quan. | Amt. | Quan. | Amt. | Quan. | Amt. | Quan. | Amt. | Amt. | | | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Another style of Maturity Record here illustrated will also be found satisfactory in many businesses.

### (755) MERCHANDISE.

Goods, wares and commodities sold in trade. The stock-in-trade of a merchant.

### (756) METRIC SYSTEM.

See Decimal System.

### (756A) MILLINERY BUSINESS ACCOUNTING—WHOLESALE AND MANUFACTURING.

In this class of business, it is necessary for the merchant to know at all times the amount and condition of stock in every department. Therefore, the business must be efficiently departmentalized, and the accounting methods are arranged accordingly.

One of the accounting problems is in connection with the purchasing of supplies by some departments from others. Records of such purchases are kept by triplicate autographic registers. One bill is kept on file by the department making the sale. The duplicate is kept by the purchasing department. The triplicate remains on the roll for future reference.

Before filing, the originals are turned into the general office each day where they are tabulated and charged to the purchasing department. See Form 1.

The sales of every kind as well as purchases of every kind are tabulated in the same way each day so that at any time the business manager can ascertain the amount of goods purchased, sold, and on hand in each department.

The factory and the five trimming departments are handled in the same manner; each department being debited with raw material supplied, and credited with finished product, thus exhibiting at the end of each season what has been accomplished by each department.

Invoices and charges are made at the same time by the use of billing machines. The machine operator does not make extensions, but after the items have been re-checked, the invoice is turned over to an extension clerk who also prepares it for mailing or expressage.

FIG 1

SALES SHEET DAVID BAIRD & SON
DEPARTMENT

FIG 4

FIG 2

Tabulation of Department Sales

DAVID BAIRD & SON. Cashier's Report, 190

Balance Cash on hand, morning
Receipts
Total
Disbursements
Balance Cash on hand

CASH ITEMS VOUCHERS

In Bank
Gold
Currency
Coin
Checks
Tickets
TOTAL

FIG 3

Both sales book and cash book have columns provided for each ledger, thus enabling the book-keeper to prove his daily postings and avoiding delay at the end of the month.

In this class of business a great many claims are made against transportation companies on account of goods lost or damaged in transit. These are entered on a "special claims" book but are not entered on the general books until the claim has been adjusted. It may be found desirable to devote a separate page to each claim, this page containing a complete history of the case so that reference to other books will not be found necessary.

Form four is a sample of card bills receivable record with space provided for the entry of payments on account.

Form three is a daily cash balance or cashier's report.

### (757) MINIMUM RENT.

See Dead Rent.

### (758) MINING ACCOUNTING.

Copper-nickel mining operations, like all mining operations, are of an intensely interesting character. The first question, namely, the operating accounts at the mine, may best be understood and described by having the Monthly Cost of Production Statement before us. This important statement treats the principal operating accounts in the order in which they occur and





The Mines
Cost of Producing (No1 Mine) Ore

| For Month | During (Month) 190 | | | For Period | From (Beginning) 190 To (Date) 190 | | | |
|---|---|---|---|---|---|---|---|---|
| | Average Assay of Ore % | | | | Average Assay of Ore % | | | |
| | Produced Tons of Ore | | | | Produced Tons of Ore | | | |
| | Containing lbs Copper | | | | Containing lbs Copper | | | |
| | Containing lbs Nickel | | | | Containing lbs Nickel | | | |
| | Total Metal Contents lbs | | | | Total Metal Contents lbs | | | |
| | Costing | | | | Costing | | | |
| | Per Item | Totals | Per Ton | Per lb | Per Item | Totals | Per Ton | Per lb |
| Mining Cost | | | | | | | | |
| Supplies | | | | | | | | |
| Labor | | | | | | | | |
| Pkg of Steam | | | | | | | | |
| Total | | | | | | | | |
| Hoisting Cost | | | | | | | | |
| Supplies | | | | | | | | |
| Labor | | | | | | | | |
| Wood | | | | | | | | |
| Pkg of Steam | | | | | | | | |
| Total | | | | | | | | |
| Rock House Cost | | | | | | | | |
| Supplies | | | | | | | | |
| Labor | | | | | | | | |
| Pkg of Steam | | | | | | | | |
| Total | | | | | | | | |
| Total Cost of Mining | | | | | | | | |

Mining Cost of Ore as above

STATEMENT No. 1.

gives the cost of each and all of the operations. (See statement No. 1.)

The statement is divided into three principal accounts, namely:

Mining Cost. (Mining ore underground.)

Hoisting Cost. (Bringing ore to surface.)

Rock House Cost. (Crushing ore for smelting.)

Cost on Roast Beds of Ore
Produced in (Month) 190
From each and all Mines

| Mine | Mining Cost | | Transportation Cost | | Roasting Cost | | Total Cost of Roasted Ore | |
|---|---|---|---|---|---|---|---|---|
| | Total Cost | Per Ton | Total Cost | Per Ton | Total Cost | Per Ton | For Month | Per Ton |
| No1 Mine | | | | | | | | |
| No2 Mine | | | | | | | | |
| No3 Mine | | | | | | | | |

Total Cost on Roast Beds of Ore
Produced from Commencement to Date

| Mine | Total Mining Cost | Total Transportation Cost | Total Roasting Cost | Total Cost of Roasted Ore to date |
|---|---|---|---|---|
| No1 Mine | | | | |
| No2 Mine | | | | |
| No3 Mine | | | | |

The Total Cost of Roasted Ore per Ton is the Price Charged for all Ore to Smelter

STATEMENT No. 2.

The Smelter
Cost of Producing

| Items of Cost | Month: Produced Containing Av Assay Cu / Ni — Tons | Cost | Items | Cost Per Ton / Per Lb | From Commencement: Produced Containing Av Assay Cu / Ni — Tons | Cost | Items | Cost Per Ton / Per Lb | Items of Cost |
|---|---|---|---|---|---|---|---|---|---|
| Roasted Ore | | | | | | | | | |
| Total Ore | | | | | | | | | Total Ore |
| Material | | | | | | | | | |
| Coke | | | | | | | | | |
| Wood | | | | | | | | | |
| Quartz | | | | | | | | | |
| Supplies | | | | | | | | | |
| Labor | | | | | | | | | |
| Repairs | | | | | | | | | |
| Total Cost for Month | | | | | | | | | Total Cost to Date |

Mining Roasting and Smelting Cost as above is the price charged Head Office for Metal Contents Shipped
Note— The Head Office accepts the General Charges which are Salaries of Manager and Staff

STATEMENT NO. 3.

All preliminary operations, such as clearing land, sinking shaft, etc., are generally charged to Development of Mine, but when the production of ore commences, we must open the above accounts, in order to ascertain the cost of ore ready for transportation to the smelter.

To the first account, Mining Cost, we charge all labor and supplies and also a proportion of steam used for operating the air drills used in mining under the surface. The next operation account is Hoisting Ore to the Surface. This account is also charged with same items as above. Then comes the Rock House Cost, which means the cost of crushing the ore so that it may be more readily transported and handled. Adding the cost of these different operations, we have the total cost of mining, hoisting and crushing ore. A record must be kept of the tons of ore mined (a large quantity of which will be worthless rock, which is thrown on the dump). The cost of production will be based on the tons of ore to the rock house. The weight of ore to the rock house is incorporated in this statement, also the average mineral contents of the ore as estimated by the assay office (the accuracy of the assay's estimate will be verified later when the ore is smelted and the actual mineral contents

Statement of Smelting
For Month

| Material Smelted | Weight: Tons | Lbs | Assay: % Cu | % Ni | Metal Contents: Tons | Lbs | Tons | Lbs |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | Production | | | | | | | |
| | Tons | Lbs | % Cu | % Ni | Copper | | Nickel | |
| Total | | | | | | | | |
| Extraction | | | | | Coke Consumption | | | |
| % of Copper Recovered | | | | | % of Coke on Charge | | | |
| % of Nickel Recovered | | | | | % of Coke on Material | | | |
| | | | | | % of Coke on Ores | | | |

STATEMENT NO. 4.





secured). By dividing the tons of ore produced by the cost at this stage, we secure the cost of mining per ton of ore.

In copper-nickel mining and smelting, it is necessary to submit the ore to an intermediate process before sending to the smelter. This consists of roasting the ore and is accomplished by dumping the ore in great heaps containing many tons, where, after roasting or burning for about three months, the ore is ready for smelting. The roasting is for the purpose of extracting sulphur, which slowly burns itself out, the beds emit volumes of smoke and the sulphur precipitated from this smoke destroys all vegetation for miles, so great desolation reigns around the mining district.

### TRANSPORTATION COST.

The transportation cost of conveying the ore to the beds is next found. This is a heavy cost of the ore. It is conveyed sometimes by train and quite often by means of an aerial tram which is a heavy continuous cable on which buckets are strung at intervals and conveyed in this way sometimes for miles.

The transportation cost is treated just the same as the mining cost and is charged with all labor and supplies and now if we add this cost to the mining cost, we have the cost of the ore on the roast beds. Then comes the transportation to smelter cost, and we have the total cost of the ore in the smelter ready for securing the metal contents by smelting, where the most interesting operations of all commence, that is, the extraction by smelting of the metal contents of the ore and will prove to some extent the accuracy of the estimates of mineral contents in the raw ore as given by the assay office. The assay states the ore contains a certain percentage of metal contents; the smelting operation should extract the contents of metal, if unable to do so, the smelting process is either faulty or the assay is not correct as to the metal contents.

### COST OF SMELTING.

We will now follow out the same plan of securing the cost of smelting and in doing so must necessarily describe briefly the operations of smelting and thus reply to the second question of treating the ore by milling and smelting. The cost of smelting, as shown by the Smelting Statement (See Statement No. 3), consists not only of labor and supplies as in the other operations, but requires a record of the ore used in smelting and certain fluxing agents such as coke, quartz, etc. The proportion of these agents to the ore is given by the superintendent on a card called the Charge, and the man in charge of the furnace must adhere rigidly to this charge, as the success of the smelting operation depends largely upon the proportions of the charge. When at a certain temperature the metal contents are drawn from the cupola and run into converters where it is subjected to great blasts of air and steam producing certain effects and then from the converter is secured the metal contents consisting of almost pure nickel and copper matte.

To find the cost of smelting we divide the metal contents secured by the cost of all material, wages, supplies, etc., as shown by statement No. 3.

| Monthly | Balance Sheet Mine | | | | |
|---|---|---|---|---|---|
| | | Debit | | Credit | |
| Assets | | | | | |
| Construction % | Mine and Smelter | | | | |
| Equipment % | Mine and Smelter | | | | |
| Railways | | | | | |
| Aerial Tramway | | | | | |
| Exploration | | | | | |
| Development | | | | | |
| Village % | | | | | |
| Special % | Roads Drains etc | | | | |
| Stock % | Ore Supplies Coke etc | | | | |
| Bills Rec | | | | | |
| Cash | | | | | |
| Liabilities | | | | | |
| Head Office | | | | | |
| Oper % Payable | | | | | |
| Mining and Smelting Cost % | | | | | |
| Mining Cost | | | | | |
| Hoisting Cost | | | | | |
| Rock House Cost | | | | | |
| Transportation Cost | | | | | |
| Roasting Ore Cost | | | | | |
| Smelting Cost | | | | | |
| General Charges | | | | | |
| Salaries | | | | | |
| Insurance | | | | | |
| Sundry Expense | Postage Telegraph etc | | | | |

STATEMENT NO. 5.

SELLING THE PRODUCT.

The output of the smelting or the mineral contents secured is charged to head office at cost as shown by the Smelting Statement. Invoices are made out in the usual way, showing the weight of the shipments and their value.

OPERATIONS OF GENERAL SUPPLY STORE AT MINES.

All purchases for supply house are charged to supplies. No goods are issued without an order from the superintendent stating the account they are for. These orders are then charged to their respective accounts and credit given to supplies, the balance of this account should represent the goods on hand and will check the inventory.

MAKING REGULAR MONTHLY REPORTS TO HEAD OFFICE.

Before sending off monthly reports to head office it is well to take off a trial balance which will contain the following accounts. (See Statement No. 5.) The monthly reports should consist of a statement showing all cash receipts and disbursements and is practically a copy of the cash book. These and perhaps a copy of the trial balance are the reports necessary for the head office. They should be certified to by an auditor. A statement also showing percentage of coke to ore and percentage of metal recovered to ore is generally submitted.





KEEPING OF RECORDS AT HEAD OFFICE.

Mine account at head office is treated in a very simple way. It is charged with all cash advanced the mine and it is credited with all invoices of metal received from the mine. The balance of the account is considered an asset represented by the construction and equipment accounts and the ore on hand as shown by the balance sheet from the mine which is audited.

The head office sells the metal and credits their sales account in the usual way. The head office profit and loss account would therefore contain the following accounts:

DR.

Copper—Cost from mine.....
Nickel—Cost from mine.....

Expense Accounts.....

CR.

Sales—Metal sold for.....
Stock on Hand.....
Balance Profit from Trading.....

(759) DAILY MINING COSTS.

COPPER MINE.

The following system has been found entirely satisfactory. The basis of the system is a number of daily blanks which are filled in by the various foremen. They are handed into the office by the timekeeper, where they are duly posted, the labor being posted in a time book, Form 1, and from there the weekly totals are posted to the cost ledger from which the monthly cost sheet is made out.

The mining sheet, Form 2, needs no explanation. Accompanying these sheets is another giving name of each man and his time in each particular working.

Week Ending Aug 31/06
Hours
Date
LEVEL NO 5

| Rate per Day No. | S | M | T | W | T | F | S | | | Dollars | Cts. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Total posted in ¶ as above in Cost Ledger | | | | | | | | | | | |

FORM 1.

COLONIAL COPPER CO

Date _____ 1906 MINING

| Locality | Powder | Caps | Fuse | Timber | Oil | Candles | 1st Driller | Landings | Mucker | Carmen | Pumps |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAIN SHAFT | | | | | | | | | | | |
| LEVEL 1 | | | | | | | | | | | |
| " 2 | | | | | | | | | | | |
| " 3 | | | | | | | | | | | |
| " 4 | | | | | | | | | | | |
| " 5 | | | | | | | | | | | |
| STATION 1 | | | | | | | | | | | |
| " 2 | | | | | | | | | | | |
| " 3 | | | | | | | | | | | |
| STOPE 1 | | | | | | | | | | | |
| " 2 | | | | | | | | | | | |

FORM 2.

COLONIAL COPPER CO.

Date _____ 1906 SURFACE

| Designation | Hoist | Ore-B. | Wood | Pump Station | Concentrator | R.R. | Farm | Rock Breaker | |
|---|---|---|---|---|---|---|---|---|---|
| WOOD | | | | | | | | | |
| COAL | | | | | | | | | |
| OIL | | | | | | | | | |
| LABOR | | | | | | | | | |
| ENGINEER | | | | | | | | | |
| FIREMAN | | | | | | | | | |
| TEAM | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

FORM 3.

COLONIAL COPPER CO CAPE D'OR _____ 190

DAILY REPORT OF CONCENTRATOR.

| | DAY | NIGHT | |
|---|---|---|---|
| Rock Crushed | | | Tons |
| Rock Milled | | | Tons |
| Gross Yield of Copper | | | Pounds |
| Gross Yield of Concentrates | | | Pounds |
| Hours in Operation | | | Hours |
| Men Employed | | | Number |

REMARKS

SIGNATURE.

FORM 4.

In addition to the milling costs, the next card, Form 3, has record of pump station and the concentrator rock-breaker, the railroad operation showing costs and the fuel for mine boilers. The column headed wood is for the purpose





of keeping the cost of men engaged in the woods cutting cord wood. The ore bin has to do with the maintenance and operation of incline trestle work and bin. The blank columns are for the purpose of unclassified or general work.

The daily return from milling department is shown by the next card, Form 4.

Items of cost outside of labor are carried monthly to the general ledger by means of journal entries.

### (760) MINUTE BOOK.

See Stock.

### (761) MONETARY TABLE.

See Coins.

### (762) MONTHLY STATEMENT.

A term sometimes used to designate either a monthly trial balance or a monthly financial statement of any kind.

### (763) MORTGAGE.

A conditional conveyance of property as security for the payment of a debt or performance of an obligation, the said conveyance to become void upon the due payment of the debt or performance of the obligation.

### (764) MULTIPLICATION.

A brief method of adding to itself a given number, or quantity, a specified number of times.

Some short methods of multiplication may be described as follows:

To MULTIPLY BY 9—Annex a cipher to multiplicand and subtract original number.

To MULTIPLY BY 11—Annex a cipher to multiplicand and add original number.

To MULTIPLY BY 998—Annex three ciphers to multiplicand and subtract two times the original number.

To MULTIPLY BY 5—Annex cipher to multiplicand and divide by 2.

To MULTIPLY BY 20—Annex two ciphers to multiplicand and divide by 5.

To MULTIPLY BY 33⅓—Annex two ciphers to multiplicand and divide by 3.

LIKE FIGURE METHOD.

45 26 44
47 36 62

Notice conditions. Tens alike, units alike or the two figures of one number alike.

$45 \times 47$ $7 \times 5 = 35$
$4 \times (7+5 = 51$
$4 \times 4 = 21$ 2115 = ans.

Rule: For the first figure in result multiply the units.

For the second figure in the result add the unlike figures and multiply by one of the like.

For the remainder of the result, multiply the tens.

(Always carry as in ordinary multiplication.)

This is a very valuable method and can be applied in numberless ways.

$4321 \times 555$

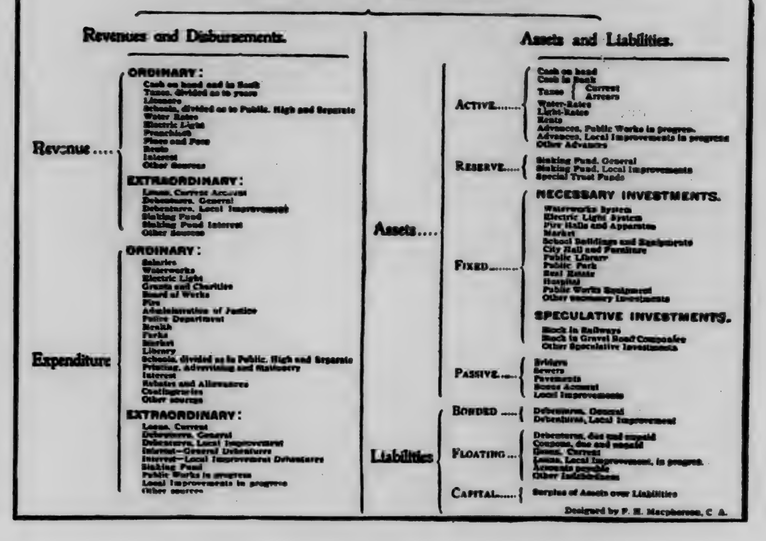
| | |
|---|---|
| $5 \times 1$ | $= 5$ |
| $5 \times (1+2)$ | $= 15$ |
| $5 \times (1+2+3)$ | $= 31$ |
| $5 \times (2+3+4)$ | $= 48$ |
| $5 \times (3+4)$ | $= 23$ |
| $5 \times 4$ | $2398155 =$ ans. |

$463 \times 43$

| | |
|---|---|
| $3 \times 3$ | $= 9$ |
| $3 \times (6+4)$ | $= 39$ |
| $4 \times (6+3)$ | $= 39$ |
| $4 \times 4$ | $= 19$ |
| | $19909 =$ ans. |

At first glance this may appear complicated but in actual practice it will not be found so.

## Specification for Municipal Balance Sheet,
### Analysis and Classification.








## (765) MUNICIPAL ACCOUNTING.

Municipal accounting does not differ in principle from the accounting of any other commercial business. The application of the principle is, however, somewhat different. In but few instances does the ordinary system of municipal accounts exhibit the true condition of the affairs of the corporation. Financial reports as usually presented may exhibit a correct statement of the receipts and the disbursements, but rarely, if ever, is the statement of assets and liabilities anything more than an approximate estimate of the position of the corporation.

Herewith is presented a specification for a Municipal Balance Sheet. The analysis and classification of the several items which enter into the accounts of the average municipality is given in such form as if carried out in detail will enable the treasurer to furnish a complete and comprehensive statement of the corporate affairs:

It is essentially necessary to include in any model or system much more in items and detail than will be found requisite in any one municipality. In the illustration here given, this holds good.

The municipal revenues for each year consist of the debts accruing due by levy or otherwise from all and sundry to the corporation, although these may not necessarily be collected within the period. Land taxes, water rates, electric light rates, licenses, school grants, fines and fees, form the ordinary sources of revenue; the extraordinary revenues are derived from sale of debentures, bonds, temporary loans, sale of public property, franchises and the like.

The details of the various sources of revenue having been ascertained, they should at once be made a matter of record, in books especially designed for the purpose, with such accompanying particulars as will, either at the present or in the future, give all needed information. These records are in the form of registers or rolls, as the tax roll, water rate roll, electric light roll, license register, market fee register, and such other books as are found to be necessary or convenient to cover the various forms or sources of revenue. All these registers or rolls should be susceptible of proof as to clerical correctness within themselves, the better plan being by the use of the columnar system of debits and credits. Accounts for each roll should find a place in the general ledger, the sum of the debits being entered at one operation. The counterbalancing entry will be to the credit of "revenue account." After the credits, in the form of collections, rebates, allowances, etc., are entered, the balances will represent the amounts appearing opposite the various items in the statement of assets, and should agree in each case with the amount of the outstandings appearing in the various rolls.

The ordinary expenditures are such as are incurred in the daily conduct and maintenance of municipal government. In any other business these would be called operating expenses. The extraordinary expenses are in the nature of redemption of debentures, interest on payments thereon, repayment of temporary loans, construction of permanent works, purchase of real estate, etc. The expenditures of a municipal corporation for a given year, are the debts

contracted by the corporation within the particular period, even though they may not be satisfied by payment. In the average municipality the revenues will ordinarily be exhibited at their true value in the published statement for the year. The expenditures are rarely so stated. To present a fair and correct statement of the condition of affairs, all the accounts for debts contracted within the period should be passed upon by the proper committees or council, and if immediate payment is not possible, carried by the treasurer to the credit of the individuals, the debits being made to the proper accounts of expenditure. These debts will then be recorded in the ledger as liabilities, and will appear in the balance sheet as such, while the expenditures of the year will be shown at their correct status.

In the specification presented, the "ordinary" expenditures and "ordinary" revenues are in effect the debit and credit sides of the municipal profit and loss account.

The assets are subdivided into four classes—active, reserve, fixed, and passive. Active assets comprise cash, which includes the amounts in the treasurer's hands, and the balances due from the bank on accounts current; taxes current, outstanding; tax arrears, outstanding; water rates; electric light rates; rents; advances on account of permanent public works, or local improvements; and miscellaneous. Reserve assets include sinking funds on general or local improvement accounts, and other specially invested funds, Fixed assets are subdivided under two heads, viz., necessary investments and speculative investments. The first includes all permanent investments, as water works system; electric light system; fire halls and apparatus; markets; school buildings and equipment; city hall and furniture; public library; parks, real estate; public works equipment; and other investments of a like nature. The second includes stock held in railway or gravel road companies, or such other enterprises of a public nature as are permitted by statute. Passive assets represent investments which, while somewhat permanent in character, are intended to be written off as the debentures issued to cover the cost thereof are reduced, the life of the work and of the debentures to be concurrent. In this class is also included the item of local improvements of an amount equal to the debenture indebtedness outstanding on that account, an annual reduction being made, equivalent to the yearly redemption of debentures. Advances by way of bonds also come under this head, the amount to be written off annually running concurrently with the retirement of the debentures which produced the original amount of the bonus.

The second division of the balance sheet—the liabilities—is divided into three classes, viz.: bonded, floating, and capital. Bonded liabilities is subdivided under two heads: (1) debentures, general; and (2) debentures issued on account of local improvements, this latter being a direct liability secured by collateral in the form of rights to levy upon the rate payers interested and benefitted by the several works. Floating liabilities comprise debentures due and unpaid, coupons due and unpaid, loans current, loans on account of local improvement in progress, and accounts payable.

Capital liability represents simply the surplus of assets over liabilities.





The subsidiary books required for the purpose of keeping the records in a municipality are many and varied, according to the conditions governing, and they are perfect, or imperfect, according to the ability of the designer.

(766) UNIFORM SYSTEM OF MUNICIPAL ACCOUNTING.

The following system has been adopted by a large number of cities throughout the country and it is expected that before long it will be in general use in the municipalities of the United States.

**Gen'l Municipal Debt Continued**

| Public Highways and Bridges | For Expense of the Current Year | For Expense of Prior Years | For Loans and Capital Outlays | Total Disbursements |
|---|---|---|---|---|
| 6.0 Supervision of Highways and Bridges | | | | |
| 6.1 Engineering | | | | |
| 6.2 Street Repairing | | | | |
| 6.3 Street Paving | | | | |
| 6.4 Sidewalks and Curbing | | | | |
| 6.5 Gutters and Drains | | | | |
| 6.6 Snow Removal | | | | |
| 6.7 Street Lighting | | | | |
| 6.8 Street Sprinkling | | | | |
| 6.9 Bridges | | | | |
| 6.10 Abolition of Grade-crossings | | | | |
| 6.11 Miscellaneous | | | | |
| Total Public Highways and Bridges | | | | |

| Recapitulation |
|---|
| 1. General Officers and Offices |
| 2. Public Charities and Corrections |
| 3. Public Safety |
| 4. Public Health |
| 5. Public Sanitation |
| 6. Public Highways and Bridges |
| Total Gen'l Municip Departments |

**II. Public Education and Recreation**

| Public Schools | For Expense of the Current Year | For Expense of Prior Years | For Loans and Capital Outlays | Total Disbursements |
|---|---|---|---|---|
| 7.0 Supervision of Schools | | | | |
| 7.1 Elementary Schools | | | | |
| 7.2 Grammar Schools | | | | |
| 7.3 High Schools | | | | |
| 7.4 Schools for Special Education | | | | |
| 7.5 Evening Schools | | | | |
| 7.6 Miscellaneous | | | | |
| Total Public Schools | | | | |

| Public Libraries, Art, Etc. | | | | |
|---|---|---|---|---|
| 8.0 Supervision of Public Libraries, etc. | | | | |
| 8.1 Public Library | | | | |
| 8.2 Public Art Galleries | | | | |
| 8.3 Public Museums | | | | |
| 8.4 Public Statues and Sculpture | | | | |
| 8.5 Miscellaneous | | | | |
| Total Public Libraries Art, etc. | | | | |

| Public Recreation, Celebrations, Etc. | | | | |
|---|---|---|---|---|
| 9.0 Supervision Public Parks, etc. | | | | |
| 9.1 Public Parks | | | | |
| 9.2 Public Parkways and Bridges | | | | |
| 9.3 Public Playgrounds | | | | |
| 9.4 Public Gymnasium | | | | |
| 9.5 Public Baths, Bathing Beaches, etc. | | | | |
| 9.6 Public Celebrations | | | | |
| 9.7 Miscellaneous | | | | |
| Total Public Recreations | | | | |
| Grand Total Public Education and Recreation | | | | |

**General Municipal Departments**

| General Officers and Offices. | Disbursements: For Expenses of the Current Year | For Expenses of Prior Years | For Loans and Capital Outlay | Total Disbursements |
|---|---|---|---|---|
| 1.1 Mayor's Office | | | | |
| 1.2 City Council | | | | |
| 1.3 City Clerk | | | | |
| 1.4 Law Department | | | | |
| Finance Offices | | | | |
| 1.5 City Auditor or Comptroller | | | | |
| 1.6 City Treasurer | | | | |
| 1.7 City Collector | | | | |
| 1.8 City Assessors | | | | |
| 1.9 Sinking Fund Commissioners | | | | |
| 1.10 Statistical Officers (if any) | | | | |
| 1.11 Other Gen'l Officers (if any) | | | | |
| 1.12 City Hall (General Offices) | | | | |
| 1.13 Elections | | | | |
| 1.14 Miscellaneous | | | | |
| Total General Officers and Offices | | | | |
| **Public Charities and Corrections** | | | | |
| 2.0 Supervision of Charities and Corrections | | | | |
| 2.1 Poor, Almshouse, etc. | | | | |
| 2.2 Out-door Relief | | | | |
| 2.3 Children's Institutions | | | | |
| 2.4 Lodging Houses | | | | |
| 2.5 Miscellaneous Charities | | | | |
| 2.6 Hospitals | | | | |
| 2.7 Insane | | | | |
| 2.8 Prisons and Reformatories | | | | |
| 2.9 Miscellaneous | | | | |
| Total Public Charities and Corrections | | | | |

**Gen'l Municipal Debt Continued**

| Public Safety | For Expenses of the Current Year | For Expenses of Prior Years | For Loans and Capital Outlays | Total Disbursements |
|---|---|---|---|---|
| 3.0 Supervision of Public Safety | | | | |
| 3.1 Courts | | | | |
| 3.2 Police Department | | | | |
| 3.3 Militia and Armories | | | | |
| 3.4 Fire Department | | | | |
| 3.5 Inspection and Inspectors | | | | |
| 3.6 Public Pounds | | | | |
| 3.7 Public Weights and Measures | | | | |
| 3.8 Miscellaneous | | | | |
| Total Public Safety | | | | |
| **Public Health** | | | | |
| 4.0 Supervision Public Health | | | | |
| 4.1 Health Department | | | | |
| 4.2 Quarantine and Asylhouses | | | | |
| 4.3 Health Inspectors | | | | |
| 4.4 Morgue | | | | |
| 4.5 Miscellaneous | | | | |
| Total Public Health | | | | |
| **Public Sanitation** | | | | |
| 5.0 Supervision | | | | |
| 5.1 Street Cleaning | | | | |
| 5.2 Refuse and Garbage disposal | | | | |
| 5.3 Sewers and Sewage disposal | | | | |
| 5.4 Miscellaneous | | | | |
| Total Public Sanitation | | | | |

The general titles for departments and subdivisions of the city under the "Uniform System" are arranged and the schedules are set forth, in the following order:

Schedule A.—Revenue and Expense of the current year.

Schedule B.—Current Assets and Liabilities at the end of the year.

Schedule C.—Cash Receipts and Disbursements during the year.

The schedules of Cash Receipts and Disbursements are followed by the distribution of same to the several departments of General Officers and Offices, Public Charges and Collections, Public Safety, Public Health, Public Sanitation and Public Highways and Bridges. (These come under the general heading of "General Municipal Departments.")





Then follow schedules of Disbursements on Account of Public Education and Recreation, Municipal Industries and Municipal Investments and Interest on Indebtedness.

Some of the offices and departments on these schedules may not be operated in all cities, but the uniform system of distribution of receipts and payments must necessarily provide for the requirements of all cities.

SCHEDULE A.

REVENUE AND EXPENSE OF THE CURRENT YEAR. (Not including receipts or payments on account of loans or other capital accounts.)

Revenue of the year, collected and paid into the Treasury.....$
Revenue of the year, uncollected and outstanding.....

Total Revenue, collected and uncollected.....$
Expense of the year, paid out by the Treasury.....$
Expense of the year, unpaid and outstanding.....

Total expense, paid and unpaid.....$

Excess (or deficiency) of Revenues for the year.....$

"Revenue" includes only the true income of the city which has accrued during the current year. Part of this "Revenue" has been collected and part is still uncollected (taxes, etc.), at the end of the year.

"Expense" includes only the expenditures and liabilities for current purposes incurred during the year; *i. e.*, "running expenses" of the city. Part of this "expense" has been paid and part is still unpaid (last month's bills, etc.) at the end of the year.

SCHEDULE B.

BALANCE SHEET OF CURRENT ASSETS AND CURRENT LIABILITIES.

CURRENT ASSETS.

Cash in Treasury for general purposes.....$
Uncollected taxes .....
Licenses and revenues receivable.....
Other accounts receivable.....
Supplies, etc., on hand.....
Other current assets:
.....
.....
.....

Total current assets.....$

CURRENT LIABILITIES.

Audited vouchers, drafts or warrants unpaid.....$
Other accounts payable.....
Temporary tax loans payable.....
Accrued interest payable.....

Advance to be refunded.....
Other current liabilities .....

Total Current Liabilities.....$
Revenue surplus (being net current assets available for general purposes) .....$

Total .....$

SCHEDULE C.

CONSOLIDATED CASH STATEMENT.

Cash balance in treasury at the beginning of the year.....$
Cash receipts during the year.....

Total .....$
Cash disbursements during the year.....$

Cash balance in treasury at the end of the year.....$
Details of Cash Balance at end of the year:
Total cash balance as above.....
Reserved for special purpose.
.....$
.....
.....

Total cash reserved for special purposes.....$

Balance available for general purposes.....$

The plan of having a bureau or officer to install a system of public accounting and bookkeeping in all counties and to inspect each and every office in the state is being tried in some states. The law briefly is as follows:

A department of the state auditor is established, known as the bureau of inspection and supervision of public offices, consisting of a chief and three deputies.

Separate accounts kept for every appropriation or fund made by a taxing body, showing date and manner of every payment made out of the funds provided by such appropriation, the name, address, and vocation of each person or organization, corporation or association to whom paid and for what purpose paid. Separate acounts shall be kept for each department, public improvement, undertaking, institution and public service industry under the jurisdiction of every taxing body and of the state, and all services rendered by or property transferred from one department, public improvement, undertaking, institution or public service industry to another, shall be paid for at its full and true value by the department, public improvement, undertaking, institution or public service industry receiving same, and no department, public improvement, undertaking, institution or public service industry shall benefit in any financial manner whatever by an appropriation or fund made for the support of another. All unexpended balances or appropriations shall be trans-





ferred to the fund from which appropriated whenever the account with an appropriation is closed.

A STANDARD SCHEDULE OF REVENUE AND EXPENSE.

For Public Service Corporations and Municipal Industries, as Amended by the Special Committee of the American Association of Public Accountants.

REVENUE FROM OPERATING.

Gross Earnings from Public Services .....$
Gross Earnings from Private Consumers .....
Gross Earnings from By-Products, etc. .....

Total .....$
Deduct Rebates, Refunds, Discounts, etc.....

Total Revenue from Operating.....$

EXPENSE OF OPERATING.

1. Expense of Manufacture.
   Operation .....$
   Maintenance .....
   Product Purchased (Gas, etc.).....
2. Expense of Distribution.
   Operation .....
   Maintenance .....
3 General Expense (Salaries, Office Supplies and Expenses)
   Total (1, 2 and 3).....

4. Taxes (Real Estate and other).....$
5. Franchise Taxes (paid or accrued annually or otherwise)..
6. Rentals (Leaseholds, etc.) .....
7. Insurance (Fire, Accident and Fiduciary).....
8. Damages (including extraordinary legal and other expenses and losses) .....
9. Guaranty (bad debts written off and reserve for doubtful accounts) .....
10. Depreciation (Deterioration written off and reserve for estimated depreciation) .....

Total Expense of Operating.....$

a. Net Revenue from Operating (or Deficiency).....
b. Other Revenue, or Income, net (from sources other than operating)
c. Appropriations for Operating, provided by the municipality from general funds .....

Total Available Income .....$

DISPOSITION OF AVAILABLE INCOME.

11. Interest on Funded and Floating Debts.....$

# CITY OF FITCHBURG, MASS.

Auditor's Office, August 22, 1907.

**The following table presents the Ledger footings of the City Auditor, showing the balances unexpended Nov. 30, 1906, together with the appropriations, receipts, and expenditures for eight months ending July 31, 1907.**

| | | Appropriations. | Balances Unexpended Nov. 30, 1906 | Received. | Total. | Expended. | Unexpended Balances. | Balances Overdrawn. |
|---|---|---|---|---|---|---|---|---|
| 382 | Assessors' Clerical Serv., | $500.00 | | | $500.00 | $276.25 | $223.75 | |
| 342 | Assessors Plans, | 300.00 | | | 300.00 | 300.00 | 200.00 | |
| 357 | Board of Health, | 4,800.00 | | $25.00 | 4,825.00 | 3,441.79 | 1,383.21 | |
| 451 | Burbank Hospital Mtce. | 14,000.00 | | | 14,000.00 | 8,000.00 | 6,000.00 | |
| 96 | City Engineering, | 2,800.00 | | 340.04 | 3,140.04 | 2,351.31 | 788.73 | |
| 248 | Copying Old Records, | 500.00 | $441.00 | | 941.00 | | 941.00 | |
| 312 | Dwelling House, W. Fitchburg | | | 51.36 | 51.36 | | 51.36 | |
| 516 | Fire Department | 37,500.00 | | 775.00 | 38,275.00 | 26,143.17 | 12,131.83 | |
| 318 | Gypsy Moth Extermination. | 300.00 | | 285.28 | 585.28 | 572.45 | 12.83 | |
| 282 | House Offal. | 2,900.00 | | | 2,900.00 | 1,977.28 | 922.72 | |
| 17 | Incidentals, | 5,227.52 | 8,928.90 | 2,191.33 | 16,345.05 | 13,706.05 | 2,639.00 | |
| 183 | Lighting Streets, | 35,000.00 | | | 35,000.00 | 23,313.67 | 11,686.33 | |
| | Liquor Licenses, | | | 25.00 | 25.00 | 6.25 | 18.75 | |
| 349 | Lowe Playground, | | | 3,000.00 | 3,000.00 | 2,893.51 | 106.49 | |
| 244 | Military Aid, | | | | | 476.00 | | $476.00 |
| 335 | Police Department, | 31,000.00 | | 1,409.72 | 32,409.72 | 25,208.35 | 7,201.37 | |
| 205 | Printing, | 2,800.00 | | 33.90 | 2,833.90 | 2,571.47 | 262.43 | |
| 441 | Public Burial Grounds, | 2,700.00 | .78 | 4,040.05 | 6,740.83 | 4,597.77 | 2,143.06 | |
| 422 | Public Parks, | 2,000.00 | | | 2,000.00 | 1,972.07 | 27.93 | |
| 175 | Public Library, | 5,500.00 | | 2,442.70 | 7,942.70 | 6,181.70 | 1,761.00 | |
| 285 | Rep. and Care Pub. Bdgs., Salary School Janitors, $5,415.04 Fuel, 3,639.36 | 26,000.00 | | 1,372.60 | 27,372.60 | 14,378.53 | 12,994.07 | |
| 226 | Salaries, | 15,500.00 | | | 15,500.00 | 9,694.52 | 5,805.48 | |
| 163 | School Teachers Salaries, | 90,625.00 | | 40.00 | 90,665.00 | 61,143.13 | 29,521.87 | |
| 319 | School House, Ashburnham St., | | 1,943.40 | | 1,943.40 | 2,589.01 | | 645.61 |
| 528 | School House, South Street, | | 15,295.02 | 229.17 | 15,524.19 | 15,305.70 | 218.49 | |
| 199 | School House, East St., | | 1,972.58 | | 1,972.58 | 38.80 | 1,933.78 | |
| 135 | School Incidentals and Books, | 10,000.00 | | 606.32 | 10,606.32 | 9,143.70 | 1,464.62 | |
| 456 | *Street Macadam Construction, | | | | | 1,593.77 | | 1,593.77 |
| 484 | Street Macadam Maintenance, | 4,000.00 | | | 4,000.00 | 4,791.46 | | 791 46 |
| 575 | *Sewer Construction, | | 375.44 | 275.87 | 651.31 | 10,383.19 | | 9,731.88 |
| 586 | Sewer Maintenance, | 3,000.00 | | 39.48 | 3,039.48 | 2,895.34 | 144.14 | |
| 186 | *Side Walk Construction, | | 922.60 | 539.54 | 1,462.14 | 2,582.25 | | 1,120.11 |
| 267 | Side Walk Maintenance, | 2,300.00 | | 15.43 | 2,315.43 | 4,777.62 | | 2,462.19 |
| 306 | *Street Construction. | | 823.67 | 18.69 | 842.36 | 21,330.31 | | 20,487.95 |
| 422 | Street Maintenance, | 25,500.00 | | 1,633.75 | 27,133.75 | 27,502.79 | | 369.04 |
| 502 | *Street Paving Construction, | | 691.59 | | 691.59 | 2,304.45 | | 1,612.86 |
| 495 | Street Paving Maintenance, | 5,500.00 | | 132.17 | 5,632.17 | 3,792.82 | 1,839.35 | |
| 432 | †Street Watering, | 1,000.00 | | | 1,000.00 | 3,627.92 | | 2,627.92 |
| 461 | Special Sewer Account, | | 737.37 | 5,000.00 | 5,737.37 | 5,356.69 | 380.68 | |
| 314 | State Aid, | | | 4.00 | 4.00 | 3,296.50 | | 3,292.50 |
| 386 | Soldiers' Relief, | 8,000.00 | | 59.00 | 8,059.00 | 5,662.25 | 2,396.05 | |
| 45 | Support of Poor, | 17,000.00 | | 1,196.37 | 18,196.37 | 13,351.54 | 4,844.83 | |
| 23 | Almshouse, $6,427.25 | | | | | | | |
| 26 | Outside Poor, 6,924.29 | | | | | | | |
| 292 | Taxes Abated, | | | | | 66.90 | | 66.90 |
| | *To be covered by Loan. | $356,452.82 | $32,129.35 | $25,783.77 | $414,365.94 | $349,598.98 | $110,045.15 | $45,278 19 |
| | †Assessments to be credited. | | | | | | | |
| | APPROPRIATIONS TO PAY MATURING INDEBTEDNESS, INTEREST, ETC., FOR 1907. | | | | | | | |
| | Armory Sinking Fund, | $1,033.29 | | | $1,033.29 | | $1,033.29 | |
| | General Sinking Fund, | 2,500.00 | | | 2,500.00 | | 2,500.00 | |
| | School Loan Sinking Fund, | 4,500.00 | | | 4,500.00 | | 4,500.00 | |
| | Sewer Loan Sinking Fund, | 1,500.00 | | | 1,500.00 | | 1,500.00 | |
| | State Normal School Sink. F'd, | 800.00 | | | 800.00 | | 800.00 | |
| | Water Loan Sinking Fund, | 16,000.00 | | | 16,000.00 | | 16,000.00 | |
| | Fire Station Loans, | 3,744.50 | | | 3,744.50 | $2,500.00 | 1,244.50 | |
| | Grade Crossing Loans, | 3,000.00 | | | 3,000.00 | | 3,000.00 | |
| | Lowe Playground, Loan, | 300.00 | | | 300.00 | 300.00 | | |
| | Oak Hill Road, Bridge Loan, | 700.00 | | | 700.00 | | 700.00 | |
| | Paving Loans, | 7,475.00 | | | 7,475.00 | 3,300.00 | 4,175.00 | |
| | Post Office Park Loan, | 300.00 | | | 300.00 | | 300.00 | |
| | Public Building Loan, | 500.00 | | | 500.00 | | 500.00 | |
| | School House Loan, | 19,300.00 | | | 19,300.00 | 7,750.00 | 11,550.00 | |
| | Sewer Loans, | 7,695.00 | | | 7,695.00 | 3,220.00 | 4,475.00 | |
| | Sidewalk Loan, | 4,925.00 | | | 4,925.00 | 950.00 | 3,975.00 | |
| | Street Construction Loan, | 28,300.00 | | | 28,300.00 | 7,400.00 | 20,900.00 | |
| | Interest on Temporary Loans, | 16,000.00 | $1,798.29 | $4,513.87 | 22,312.16 | 14,343.93 | 7,968.23 | |
| | Interest on Bonds, | 1,804.32 | | | 1,804.32 | | 1,804.32 | |
| | Interest on Water Debt, | 18,345.00 | | | 18,345.00 | 10,135.00 | 8,210.00 | |
| | Interest on General Debt, | 36,629.79 | 2,639.43 | 3,587.50 | 42,856.72 | 22,472.32 | 20,384.40 | |
| | County Tax, | 28,619.00 | | | 28,619.00 | | 28,619.00 | |
| | State Tax, | 32,000.00 | | | 32,000.00 | | 32,000.00 | |
| | State Highway Tax, | 197.30 | | | 197.30 | | 197.30 | |
| | | $236,168.20 | $4,437.72 | $8,101.37 | $248,707.29 | $72,371.25 | $176,336.04 | |





Remainder of Available Income.....$
12. Reserved for Sinking Funds .....$
13. Reserved for Amortization Funds .....
14. Reserved for Other Funds .....

Total Reserves .....$
15. Dividends (Private Plants).....
16. Appropriation to General City Funds (Public Plants).....

Total disposition of Available Income.....$

Credit (or Debit) balance transferable to "Surplus".....$

(767) CITY APPROPRIATION RECORD.

The illustration on opposite page is a copy of the official report of the city auditor to the city government every month and it shows at a glance the condition of the several departmental accounts.

It is also a guide to the committees of the various departments and to the department officials.

## (768) NAVIGATION BUSINESS ACCOUNTING.

In the general ledger are carried two accounts with each boat, one as an investment account and the other as a profit and loss account. In the profit and loss account, the boat is charged with all operating expenses and repairs and credited with the total receipts from freight and towing. The balance of this account shows net earnings.

### RECORD AND EXPENSE DISTRIBUTION BOOK.

This book is rather large but its usefulness offsets that inconvenience. Each line represents a trip of the boat and shows a complete record of the trip. It gives details of receipts and makes a fine distribution of the various operating expenses. One page accomodates a season's business and the balance of this book must agree with the profit and loss account in connection with the boat in the general ledger. A cost record sheet can be taken from this book in a very short time for any number of trips or for any length of time.

### TRIP SHEET.

The trip sheet is made out by the captain of the steamer at the end of every trip and contains a record of receipts and disbursements as far as he is concerned. At the end of the trip, he is given a check to cover the pay roll and other expenditures. The captain receives a stated amount per day for provisions, therefore the office has nothing to do with buying the provisions for the boat. This does away with the chance of commissions on grocery bills. The fuel is purchased through the office and means a saving of as high as ten cents a ton in many instances for the reason that some captains receive a commission on the fuel bills. Upon receipt of the trip sheet in the office, it is

Trip No. **OFFICIAL LOG.** Vessel

Left o'clock M. 190

Arrived o'clock M. 190

| Date | Time | Leaving Dock, Passing Ports and Lighthouses | Name, Character and Destination of all boats, and their crews | Course | Wind | Weather | Log | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Abbreviations. Wind—"L" light, 6 to 8 mile breeze. "F" fresh, 8 to 10 mile breeze; "S" strong, 10 to 20 miles. "H" heavy, over 20 miles.

**LOADING REPORT OF CARGO**

| | | |
|---|---|---|
| Reported for Dock, | 190 | M. |
| Furnished Dock, | 190 | M. |
| Commenced Loading, | 190 | M. |
| Finished Loading, | 190 | M. |
| Actual Working Time, | Hrs. | Min. |
| Total Time in Port, | Hrs. | Min. |
| Loaded | Tons. | |
| Consigned to | | |
| At | | |
| Draft of Water, Forward, | Aft. | |
| At | ft. in. | ft. in. |
| At | ft. in. | ft. in. |

**UNLOADING REPORT OF CARGO**

| | | |
|---|---|---|
| Reported for Dock, | 190 | M. |
| Furnished Dock, | 190 | M. |
| Commenced Work, | 190 | M. |
| Finished Unloading, | 190 | M. |
| Actual Working Time, | Hrs. | Min. |
| Total Time in Port, | Hrs. | Min. |
| Unloaded, | Tons. | |
| Discharged at | | Dock, |
| At | | |
| Time Pasting, | Hrs. | Min. |
| Tons at | | |
| No. Miles, | No. Revolutions of Engine, | |

**HARBOR TOWING ACCOUNT**

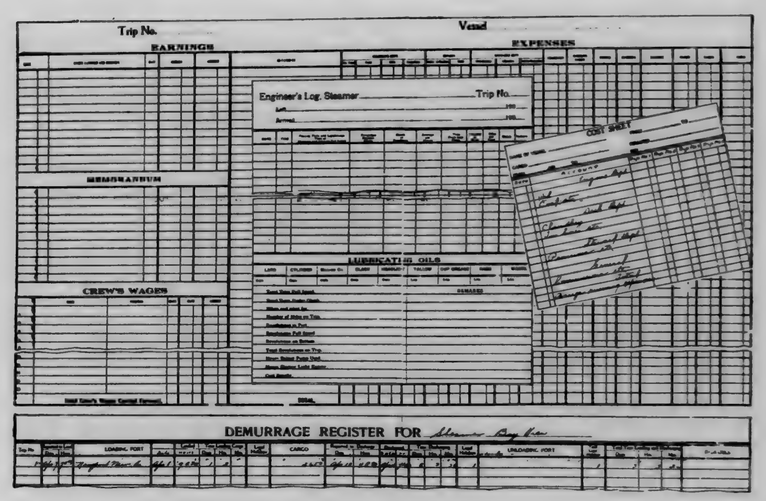
| DATE | TOWED THEM | TO WHERE | TRANSFER FROM | TRANSFER TO | NAME OF TUG | WHAT PORT |
|---|---|---|---|---|---|---|
| | | | | | | |

**PASSENGER ACCOUNT**

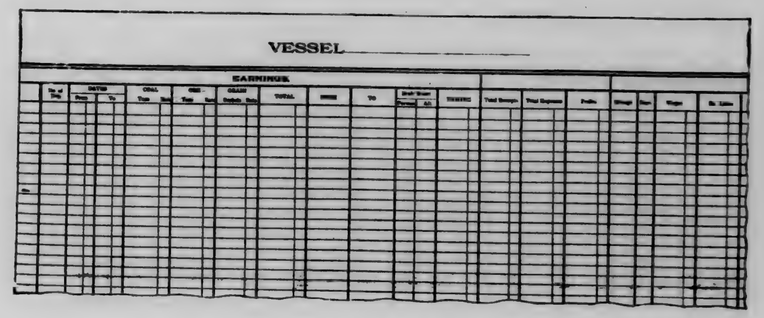
| DATE CAME | WHAT PORT | NAMES | BY WHOM SENT | LEFT AT PORT | DATE |
|---|---|---|---|---|---|
| | | | | | |

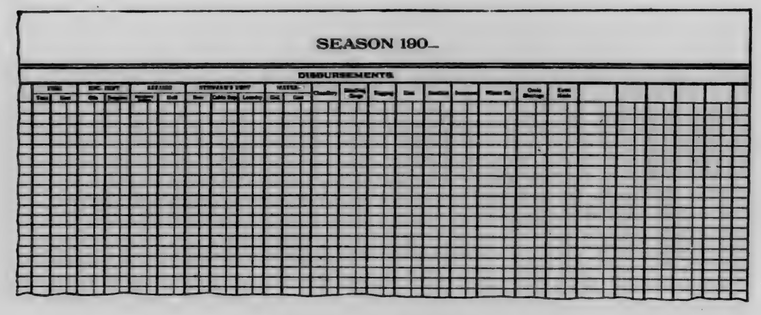







checked and all bills belonging to that trip and which have been paid by the office are entered on that trip sheet. The trip sheet will show every bill in connection with the trip. The trip sheet is then ruled up and copied in the record and expense distribution book. By this method we save keeping all these expense accounts in the ledger. The trip sheet and all bills and papers in connection with the trip are filed together in a large envelope. By being careful in opening the envelope mailed by the captain when he sent in his trip sheet, the same envelope can be used for filing purposs. On the outside of the envelope will be a notation in regard to the date and number of trip. As bills come into the office make a notation on same as to number of trip and provide a file for each boat so that you can refer to the bills of any boat.






DEMURRAGE REGISTER.

The demurrage register is a record of the time used in loading and discharging the cargo. The parties chartering the boat agree to load and discharge the boat in a certain length of time and all time used over this amount they pay for at the rate of $100 per day. The price depends upon the boat. In cases of a season's charter, they have the privilege of making up for lost time, that is, if they load and discharge the boat in less time than agreed upon, the difference would go to offset any overtime. This is on the salt water. The time is marked on the bill of lading. At the end of the year or season, each boat is credited with any demurrage that would be due.

COST SUMMARY.

The cost summary is a comparative sheet to show running expenses. At the top is printed such lines as may be required for the name of the boat, etc. The expense of various departments is shown separately. All information for this sheet is taken from the record book. By comparing the sheets, it is a very easy matter to note any extra expense in any department. By giving a sheet of the above to the captain of another boat it makes them do better work and look after things closer.

OFFICIAL LOGS.

These sheets explain themselves and are made out every trip, one by the captain and one by the chief engineer. In case of wrecks or disasters they become very important in the adjustment of the insurance matters. Both logs are filed with the other papers belonging to the trip.—*P. S. Matthews, Jr.*

## (769) NET.

That amount or quantity which remains after all offsets or deductions have been made or redundancies removed.

"Without any further deduction."





## (770) NET CAPITAL.

The surplus of actual assets over actual liabilities.

## (771) NET PROFIT.

The amount remaining after cost of material, cost of production, expense of selling and administration have been deducted from the amount realized from sales.

The amount remaining after all business expenditures have been deducted from income derived from services rendered.

"After all expenses of distribution and establishment charges, discount, interest, etc., have been charged against profits, the balance remaining is net profit."

## (772) NOMENCLATURE (ACCOUNTING).

The suitable expression of technical requirements and methods used in the science of accountancy.

Nomenclature depends very much on classification, as, for example, shall we call Bills Receivable account a Real or a Representative account? What is the difference between a cost card and a cost summary? The first is a summary of the details of one particular order, while the second is a recapitulation of completed orders from which the totals of material, labor and shop expense are obtained at the end of each month to be credited to the accounts indicated and debited to finished goods.

## (773) NOMINAL PARTNER.

One whose name is used in a business, but who takes no part in the management of the business.

## (774) NOTE.

A written or printed paper acknowledging a debt and promising payment.

### (774A) NOTE BOOK (AUDIT).

A memorandum book designed for accountants in which they note the particulars and features of work accomplished in an audit as the same progresses.

### (775) NOTES—ACCOMMODATION.

A term used to describe that class of bills of exchange which represent no actual exchange of real value. Notes or bills drawn for discount without relation to any actual sale of goods or indebtedness. A note given without consideration for the purpose of raising money by discounting, or obtaining loans, on the security of the endorser or endorsers, or for mutual accommodation.

(776) NOTES DISCOUNTED.

Notes or Bills discounted are liabilities contingent on their being paid by the acceptors when due. A special column is usually provided in the Notes Receivable Register to record transactions of this nature.

(777) NOTES PAYABLE.

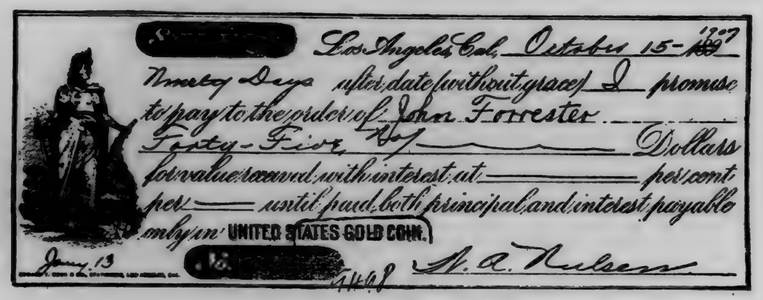
See Bills Payable.

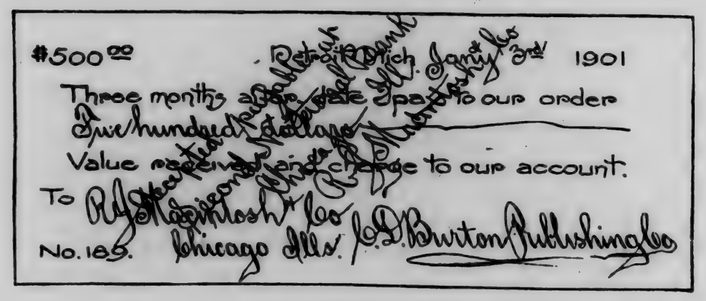
(778) NOTES—PROMISSORY.

A written promise to pay a certain sum of money, at a future time, unconditionally; an unconditional written promise, signed by the maker, to pay absolutely and at all events, a sum certain, in money, either to the bearer or to a person therein designated or his order.

(779) NOTES RECEIVABLE.

See Bills Receivable.


Los Angeles Cal. October 15- 1907
Ninety Days after date (without grace) I promise
to pay to the order of John Forrester
Forty-Five 45/100 Dollars
for value received, with interest at ——— per cent.
per ——— until paid, both principal and interest payable
only in UNITED STATES GOLD COIN.
Jan. 13 1908 W. A. Nelson


#500 00 Detroit, Mich. January 3rd 1901
Three months after date pay to our order
Five hundred dollars
Value received and charge to our account.
To R. G. Dun & Co.
No. 189. Chicago Ills. W. D. Burton Publishing Co





(779A) NOTE—RENEWAL.

Notes given to take up other notes falling due, but which it is not convenient to pay.

If the renewal note includes interest a journal entry is a necessity, but when the interest is paid by check and the note renewed for the same amount, some book-keepers simply make a memorandum on the Bills Payable account and book that the note was renewed at such a date.

(779B) RESTRICTIVE ENDORSEMENT.

An endorsement on a note making it non-negotiable. As "Pay to John Smith only."

(780) **NOVATION.**

A term used to describe an agreement made by creditors with the continuing partners in a business after the withdrawal of one partner, by which the creditors agree to look to the continuing partners for full payment of all debts of the firm due at date of the withdrawal.

(781) **NUMERICAL REFERENCE.**

A system of reference by numbers instead of by the alphabet. Thus, in loose-leaf and card ledgers, accounts are frequently indexed by numbers, the loose sheets or cards being kept in numerical order, with proper guide cards or tabs.

Numerical reference is also largely used for records of contracts or mortgages, everything pertaining to the contracts or mortgages being stamped with the number given and filed away under that number.

(782) **OBSOLESCENCE.**

"The process by which an article before it is worn out falls either wholly or in part into desuetude, and as a result is no longer of current application in the trade for which it was designed."

(783) **ON SALE.**

A term used to designate goods received on consignments for sale.

(784) **OPEN ACCOUNT.**

An unbalanced account, as opposed to a closed account which has been balanced by payment or transfer of balance.

A running or unsettled account; not completely settled, but subject to future adjustment.

## (785) OPENING BOOKS AND ENTRIES.

Those entries necessary to properly commence the books of a business whether of an individual proprietor, co-partnership, or corporation. We append an illustration of the opening and closing entries connected with the transfer from a partnership to a corporation.

The old books having been closed and the net assets of the business properly divided between the partners in accordance with their respective interests in same, we will say that these interests are determined as follows:

A—$9,000.
B—$7,000.

It is proposed to capitalize the new corporation at $20,000, A's son C investing $2,000, and B's son D investing a like amount.

The corporation takes over the business just as it stands, viz.:

| | |
|---|---|
| Total assets | $21,000 |
| Total liabilities | 5,000 |
| Net assets | $16,000 |

The assets consist of Cash, Accounts and Bills Receivable, Real Estate, Building, Plant, raw and partly finished material, supplies, tools, etc. For our present purposes it is unnecessary to specify these in illustrating our opening entries, which will be arranged as follows:

JOURNAL.

Recite particulars of incorporation such as published by Secretary of State on issue of license.

| Dr. | | Cr. |
|---|---|---|
| | CAPITAL STOCK. | |
| | 200 shares of $100 per share | $20,000.00 |
| | Subscribed as follows: | |
| | A. | |
| $9,000.00 | 90 shares of $100. | |
| | B. | |
| 7,000.00 | 70 shares of $100. | |
| | C. | |
| 2,000.00 | 20 shares of $100. | |
| | D. | |
| 2,000.00 | 20 shares of $100. | |

By purchase of the business of A and B in pursuance of resolutions of Board of Directors at their meeting held October 10th, 1908.

| Dr. | | Cr. |
|---|---|---|
| | ASSETS. | |
| $21,000.00 | | |
| | (As per listed asset accounts.) | |
| | LIABILITIES. | |
| | (As per listed liability accounts) | $5,000 00 |





A.
(Agreed purchase price of interest) ..... 9,000.00
B.
(Agreed purchase price of interest) ..... 7,000.00

CASH BOOK.

Entries on Cash Received side:
C. for 20 shares of stock ..... $2,000.00
D. for 20 shares of stock ..... 2,000.00

---

A machine manufacturing concern, owned and operated by Arthur Ellis has this day, as per charter, organized under the laws of the State of Pennsylvania a corporation to be known as the Philadelphia Machine & Tool Company, Inc., with 1000 shares of $100 each, making $100,000.

The promoters of the company are Arthus Ellis, Geo. D. Laphan, J. M. Kramer, Wm. D. Snow, H. R. Holcombe. Each party interested has subscribed for 200 shares, all of which are full paid.

The Resources and Liabilities of Arthur Ellis, on this date, as shown by his single entry books and the account of stock, are as follows:

RESOURCES.

| | |
|---|---|
| nventory | $33,220.00 |
| Cash on Hand | 8,360.00 |
| Office and Shop Fixtures | 2,970.00 |
| Accounts Receivable (City and Country) | 7,535.00 |
| Bills Receivable | 3,000.00 |
| Machinery | 5,000.00 |
| Total Resources | $60,085.00 |

LIABILITIES.

| | |
|---|---|
| Accounts Payable, per Ledger | $ 4,680.00 |
| Bills Payable | 5,000.00 |
| | $ 9,680.00 |

In the new company, Arthur Ellis subscribes for 200 shares ($20,000), which he pays as follows:

| | |
|---|---|
| Cash | $ 3,360.00 |
| Office and Shop Fixtures | 2,970.00 |
| Bills Receivable (guaranteed) | 3,000.00 |
| Machinery | 5,000.00 |
| Merchandise | 5,670.00 |
| Total—Arthur Ellis | $20,000.00 |
| G. D. Laphan, subscribes—cash | 20,000.00 |
| J. M. Kramer, subscribes—cash | 20,000.00 |
| Wm. D. Snow, subscribes—cash | 20,000.00 |
| H. R. Holcombe, subscribes—cash | 20,000.00 |
| | $100,000.00 |

It is agreed that the new firm shall purchase the balance of stock of Mdse. belonging to Arthur Ellis. The total invoice is $33,220. The amount turned over for stock is $5,670, the remainder is $27,550.

It is also agreed that the personal accounts due Arthur Ellis shall be collected by the new company and credited to Arthur Ellis, and that the new company shall liquidate the personal and Bills Payable liabilities of Arthur Ellis and charge same to him.

From the foregoing statement, the following journal entries are made to open the books of the new company:

| | Dr. | Cr. |
|---|---|---|
| Capital Stock | | $100,000.00 |
| A. Ellis | $20,000.00 | |
| G. D. Laphan | 20,000.00 | |
| J. M. Kramer | 20,000.00 | |
| W. D. Snow | 20,000.00 | |
| H. R. Holcombe | 20,000.00 | |
| Cash | $83,360.00 | |
| Office and Shop Fixtures | 2,970.00 | |
| Bills Receivable | 3,000.00 | |
| Machinery | 5,000.00 | |
| Merchandise Inventory | 5,670.00 | |
| A. Ellis | | $ 20,000.00 |
| E. D. Laphan | | 20,000.00 |
| J. M. Kramer | | 20,000.00 |
| W. D. Snow | | 20,000.00 |
| H. R. Holcombe | | 20,000.00 |

JOURNAL ENTRY.

To buy the remainder of the stock as per Stock Book belonging to Arthur Ellis, $27,550. This item consists of Iron, Steel, Coal, Supplies, etc., as per inventory. Total inventory $33,220 less $5,670, which was turned over in part payment for stock subscribed.

| | | |
|---|---|---|
| Purchase Account | $27,550 | |
| To Arthur Ellis | | $27,550 |

When any of the parties who owe the old house of Arthur Ellis pay their indebtedness, credit Arthur Ellis in the books of the company, and when any of the personal or bills payable liabilities of Arthur Ellis are paid debit Arthur Ellis for the amount in the books of the company. It is better to carry an account of this nature in the General Ledger, keeping it separate from Accounts Receivable or Payable.

After the organization of the new company, the subscribers donate as Treasury Stock 100 shares each, making 500 shares, the same to be sold at $50 per share to produce additional Working Capital. These shares are placed on the market as 6% Preferred Stock, and the Standard Trust Co. is paid a bonus of 10% for disposing of them.





JOURNAL ENTRY.

| | | |
|---|---|---|
| Treasury Stock | $50,000 | |
| To Working Capital | | $50,000 |

The Treasury Stock is sold to sundry parties at $50 per share, and cash is received to the amount of $25,000.

ENTRY FOR THE SALE OF TREASURY STOCK.

| | | |
|---|---|---|
| Cash | $22,500 | |
| Commission | 2,500 | |
| Discount on Treasury Stock | 25,000 | |
| To Treasury Stock | | $50,000 |

ENTRY FOR PREFERRED STOCK.

| | | |
|---|---|---|
| Capital Stock | $50,000 | |
| To Preferred Stock | | $50,000 |

The balance sheet will now show as follows:

| ASSETS. | | LIABILITIES. |
|---|---|---|
| $78,310.00 | Cash | |
| 33,220.00 | Inventory | |
| 3,000.00 | Bills Receivable | |
| 2,970.00 | Furniture and Fixtures | |
| 5,000.00 | Machinery | |
| 27,500.00 | Discount and Commission on Treasury Stock | |
| | Capital Stock— | |
| | Common | $50,000.00 |
| | Preferred, 6% | 50,000.00 |
| | Working Capital | 50,000.00 |
| $150,000.00 | | $150,000.00 |

It will be noted that the holders of common stock have not only guaranteed 6% dividends on preferred stock, but the discount and commission must also be wiped out from future profits.

## (786) OPEN ENDORSEMENT.

The endorsement of a check by simply writing across the back the name of the payee. Such an endorsement makes the check payable to bearer, and also gives a second party to whom the check may be handed for some consideration the right to reindorse it, making it payable to the order of a third party.

## (787) OPERATING CAPITAL.

The amount available for carrying on the business and which can be used for the purpose of supplies or payment of cost of production and selling expense.

Working capital.

### (788) OPERATING EXPENSE.

That incurred in the regular transaction of a business. Used most frequently in connection with the accounts of railroads, transportation, telegraph, telephone, and similar corporations, which cannot be adapted to the ordinary classification suitable for manufacturing businesses.

### (789) OPTION.

A Stock Exchange term used to denote a sale, carrying with it the privilege to make or receive delivery within a certain specified time.

### (790) ORDER.

A verbal or written request by one person to another to deliver merchandise or value and charge same to the account of the person signing or giving the order.

### (791) ORDER BLANK.

A form used for the records of orders received in substitution for a bound order book.

### (792) ORDER BLANK SYSTEM.

The order blank system of recording sales consists of specially ruled blanks, which are made in duplicate or triplicate. They take the place of ordinary sales records, and the total of the order is posted direct to the ledger from the order blank, the number of the order blank serving for the folio of the ordinary sales records. They are then filed away in consecutive numerical order, and are very easy of reference.

If the salesmen are properly instructed, the order blank system of recording sales is a great labor saver, the original entry by the salesman constituting the posting record, and entirely eliminating both day book and sales book. Not many years ago it was considered absolutely essential to copy the salesman's record of his sale into a day book and to journalize it from the day book before posting to the ledger.

AMERICAN MANUFACTURING CO.

Terms | No..... ..... 1900 | L F
Rating | Sold to _____ Salesman | Billed
Limit | Address _____ | Shipped by
Approved for shipment _____

| Shippers check | Quantity | Description | Price | Total | Store Fixtures | Furniture |
|---|---|---|---|---|---|---|
| | | | | | | |





In some cases where the number of sales are not extremely numerous, it is also customary to index each order binder alphabetically so that the bills sold to a customer can be referred to by a salesman without troubling the ledger clerk for the folios.

When made in triplicate the original order blank usually goes to the customer as a bill, the duplicate goes to the proper department, or shipping clerk, and the triplicate is handed to the bookkeeper or filed away for reference.

A sample of the form of order blank generally used in connection with this system is appended:

### (793) ORDER BOOK.

A record of orders received.

### (794) ORDER REGISTER.

Order registers are frequently used for the purpose of giving each order a number and thereby furnishing a check on the charging out of all orders filed, as each number must be accounted for.

### (795) ORGANIZATION EXPENSE.

This title covers a variety of expenses, which may include Traveling expense in soliciting for sale of stock, Telegraph, Telephone, Fuel, Posting, Advertising, Law Costs, Surveys, Engineers' expenses, Maps, Drafting, Filing and Recording fees, payments for securing Rights of Way, Bonuses, payment on Franchise accounts and general work of the clerical staff.

As these expenditures are for the benefit of the business in future years as well as for the year in which the business is organized, they are usually carried on the books as fictitious assets and liquidated over a period of from three to five years.

Preliminary Expense.

### (796) ORIGINAL ENTRY.

The first record on the main books of account of the transactions of a business. Thus, the entry of an order in the order book is not considered the original entry if the order book is an auxiliary book from which postings are not made. On the other hand, in case of a pay roll book where the details are entered but the totals are transferred to the cash book and posted from thence, the pay roll book is the book of original entry.

### (797) OUTSTANDING DISCOUNTS.

Some accountants in preparing balance sheets for their clients make allowance for cash discounts by opening a Purchase Ledger Discount Suspense Account and a Sales Ledger Discount Suspense Account. The estimated amounts of discounts are charged and credited to these accounts and charged and credited to the regular discount account. After the books are reopened for the record of the next year's transactions, these suspense accounts are written back to the regular discount account.

On the balance sheet the amount of the Purchase Ledger Suspense Account is deducted from the liability of Accounts Payable, and the amount of the Sales

Ledger Suspense Account is deducted from the amount of the Accounts Receivable.

### (798) OVERCHARGE.

An amount charged in excess of the regular price, agreed terms, or contract.

### (799) OVERDRAFT.

A term used by banks to designate the sum drawn by customers in excess of the amount standing to their credit on the books of the bank.

### (800) PAGING.

In the work of posting, it is found a considerable saving of time to enter the ledger folio from the indexes into the books from which postings are to be made, prior to posting, the posting being indicated by a check mark at the side of the page number. Modern books of account have special check columns provided for this purpose next to the folio column.

### (801) PAID-UP CAPITAL.

See Stock.

### (802) PAR.

The value named on a certificate of stock, bond, or other commercial paper.
The equality of actual and nominal value.
The face value.
The original price.

### (803) PAR OF EXCHANGE.

The rate of exchange between the currencies of different countries. Exchange is said to be at a premium or discount according to its relation to this rate.

### (804) PARTIALLY MANUFACTURED GOODS.

See Manufacturing Costs, etc.

### (805) PARTNERSHIP.

"Partnership is the relation which subsists between persons carrying on a business in common with a view to profits."

#### (805A) PARTNERSHIP—PURCHASE OF, NECESSARY INVESTIGATION.

A list of all books used should be made and particulars reported in respect to all documents relating to the matter of any importance.

A mass of detail must usually be investigated in respect of the transactions of previous years, and the method of business.

If the books have not previously been audited, it will be necessary to undertake a considerable amount of clerical work, sometimes involving the construction of a set of books on the double entry principle.

The trading, and profit and loss accounts should be arranged in comparative form so that variations and fluctuations may be seen at a glance. These





comparative statements should be accompanied by percentage computations. If possible, these computations should be compared with the percentages obtained in similar businesses.

Sales should be verified as far as possible with the idea of ascertaining that the goods have been actually delivered, or if not, that they are not included in the inventory.

Returns should be investigated to ascertain that apparent sales are not in reality goods out on approbation, and also to obtain an idea as to what proportion of the sales consists of packages, containers, sacks, bottles, etc., to be allowed for on return.

Consignments to agents must be checked, and unsold consignments taken at cost, and not treated as sales.

Old Plant and Machinery sold must not be included as sales, and work done for repairs and renewals on the place should be charged out at cost price and shown separately in the accounts.

Generally it should be noted whether the sales include large contracts, and if there is a reasonable probability of these being renewed, or similar ones obtained; also whether the customers are changeable or regular; while profits from speculations, such as in corn options, or any unusual sources of profit, must be placed under a separate heading in the trading account.

Purchases—Invoices must be checked and dates noted, a watch being kept for any that are post-dated.

The Receiving Book will help to show whether any goods are included in stock for which invoices have not been received, while statements for all open accounts should be examined to prevent any omission of invoices for goods taken into stock.

Wages—Any favorable drop in prices during the periods under review should be noted. A scrutiny of some of the pay rolls should be made to ascertain the composition of the various weekly totals.

In the case of collieries and other concerns where rates vary according to the state of trade, it is important to ascertain whether the average rate has been normal.

Stock—It must be first noted whether the valuation has been made on the same lines each year, for cases are not uncommon where in fat years the basis has been 10 per cent. under cost and in lean years above cost.

In this event an adjustment must be made, and the accounts redrawn on a uniform basis, but otherwise, if the stock is approximately the same from year to year the price at which it is valued matters not, for the intending purchaser will not pay for this asset at book prices unless he considers the valuation a fair one.

Stock Sheets must be checked and compared with the stock accounts, if such be kept.

Goods out on approbation will be verified by an inspection of the Approbation Record, inquiry being made if the goods have been out a long time whether they will be returned, or are in the nature of samples, in which case they must be debited to trading account.

Consignments will be compared with the original stock invoices and the account sales.

Work in progress must be taken at cost with addition of proper proportion of expense less provision for any expected loss unless the profit on any jobs can be fairly accurately gauged, when the valuation will be a matter of arrangement. If any big contracts were running, before taking them over it would be desirable for the purchaser to obtain expert advice.

If wilful misrepresentation is contemplated by the vendor the stock provides an easy loophole for fraud, and therefore very great care must be exercised in this direction if an independent valuation is not to be made, the last stock sheets being fully examined; but if the stock to be purchased has been taken by an outside valuer, then, if the totals are approximately the same from year to year, it is immaterial what the basis of the valuation be, provided it is uniform, as the object of the investigation is to acertain the amount of profit earned during the period.

Expenses—All expenses properly chargeable must be included, and apportionments made for rents, taxes, insurances, commissions, and salaries.

Bad Debts—The list of debtors will be checked in the usual way, full provision being made in the last year for all bad debts and discounts.

As the debts outstanding in the early years under investigation will either have been paid or have become exceedingly "doubtful" ere the end of the least year, the amount to be charged to each year's trading account can be fairly accurately calculated.

Depreciation and the Value of Fixed Assets—Here many difficulties arise. If a valuation has been made and agreed upon respecting the fixed assets, their value does not concern the investigating accountant, his only duty being to see that no expenditure properly chargeable to revenue has been capitalized, and that sufficient depreciation has been written off.

If the value is more than "book value" it is sometimes hard to determine the amount of the annual depreciation, and to distinguish the extent to which the difference is due to appreciation through fluctuation in their capital value, as distinct from excess depreciation provided; while if the "actual value" is less than the book value it is equally difficult to decide what proportion is revenue and what capital loss. Indeed, the only way is to follow general rules based on previous experience, modified according to the special requirements of the case.

If the fixed assets have not been valued by an independent valuer, then such steps must be taken as are practicable to arrive at some opinion as to their worth. Invoices for machinery and fixtures, and contracts for buildings, are the data from which the information can best be obtained.

After the trading profit has been ascertained, there are certain adjustments which have to be made, these generally being as follows.

Interest on Loans and Bank Interest—If sufficient capital is to be introduced to pay off the loan this charge against profits will not exist, and, even if not so, the charge is not against the trading profit earned, but is an appropriation of such profit, and must be so considered.





Partners' Salaries—If a partnership be contemplated, and the vendor has not charged anything for his services in the past, this item must be taken into account; and the same principle applies if the intending purchaser will be compelled to employ a manager to perform the duties formerly discharged by the vendor.

Two statements will thus have been obtained, viz.:

(1) An account showing the trading profit or loss for a certain number of years, and the net return that will be available if the business continues to be as successful as in the past, after eliminating certain charges not payable by the purchaser or the new firm.

The object of this statement is to show whether the business offers sufficient inducement as regards profits for the prospective purchaser or partner to invest his money, and also to act as a guide to the amount to be paid for good will.

(2) A balance sheet at the end of the period showing the assets and liabilities at that date. After the value of the assets has been agreed this serves as the basis upon which the business will be taken over.

After preparing the accounts the investigating accountant has to consider whether, in his opinion, the prospects of the business warrant the purchase, or partnership, and in the latter case whether the additional capital to be introduced will show a corresponding return.

If such capital is to be used to discharge pressing liabilities, and not to develop the business, the result is that the return per cent. will probably be reduced, as the earning capacity will not be increased; and a business which in the past has shown a good profit may give but a small return on a larger capital.

In calculating the amount to be paid for good-will the following points must be considered:

(1) The precise nature of the business; whether attached to locality, person, or trade; whether the retirement of the vendor is likely to have a prejudicial effect, and whether the business is in a declining locality or is a declining trade.

(2) The tenure of the premises, and if a renewal can be obtained on the same terms.

(3) The amount of capital required and the probable return thereon.

(4) The necessity of skilled supervision in place of the vendor.

(5) Whether the vendor intends to carry on a similar business.

(6) Whether, taking all these points into consideration, there is a prospect that the business will remain as profitable as under the old management.

### (806) PASS BOOKS.

A small book made up from time to time from a banker's ledger and forwarded to the customer. It is not considered as a statement of account between the parties, yet it has been held that, when the customer neglects for a long time to make any objection to the correctness of the entries, he will be bound by them.

Many banks now use the pass book simply as a receipt for the deposits made, giving the depositor a separate sheet on which is a statement of all his transactions in full. These statement sheets are written up daily, and when a depositor leaves his book for balancing, it only requires a comparison of the total deposits entered in the pass book with those entered on the statement and ledger, and if they agree the rest is simply a deduction of the total charges from the total of the deposits, including the previous balance, which leaves the balance due the depositor. Keeping these account current sheets written up-to-date enables a bank without difficulty to have every pass book ready for delivery to the depositor the morning following the day it was left.

### (807) PATENTS.

"Patent right is, primarily, an asset to the extent of the capital invested in the development or purchase of the patent, and if a patent retains its remunerative qualities throughout the period of its legal existence its salable value may increase year by year, in which case there can be no depreciation, especially as, under certain conditions, patent rights can be extended on application to the proper authorities. Under ordinary circumstances, however, it is usual to charge off, annually, a fixed proportion of the cost of acquiring a patent."

Companies are sometimes formed for the purpose of selling goods covered by a particular patent, with the provision that when the patent has expired the business of the company will terminate. In this case the advisability of writing off an annual percentage is not apparent. (See also Depreciation and Good-will.)

### (808) PATTERNS.

An account respecting value of patterns owned by a business, being the models from which the articles or machines manufactured are made.

### (809) PAY-ROLL.

A record of wages paid.

Many different methods of arranging pay rolls have been devised with a view both of saving clerical work and obtaining a check on the accuracy of the pay roll.

Pay rolls are frequently complicated by the employes obtaining advances on their pay, and being charged with goods or supplies. In the days when bookkeepers transferred everything into the journal prior to posting to the ledger, they also kept their pay roll accounts in the lengthiest and most roundabout way possible. From the pay roll they copied all the names of the employes into the journal, and having opened an individual account with each employe in the ledger, they proceeded to post to those accounts from the journal. Now any proper system used will provide for but two postings to ledger accounts, the charge of the total to ledger account and the credit to cash. The pay roll book itself is so arranged with a system of short leaves following the name pages that the names of the employes need be written only once in thirteen





Time Book and Pay-Roll for the week ending Saturday August 26th 1904

| No | Names | S | M | T | W | T | F | S | Total Time | Rate Per Day | Amount | Rent | Sundry Charges | Total Charges | Balance Due | Received Payment in Full | No |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Anderson A. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 1 50 | 9 00 | | | | 9 00 | | 1 |
| 2 | Allington G. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 1 50 | 9 00 | | | | 9 00 | | 2 |
| 3 | Baker N. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 2 00 | 14 00 | 5 00 | Room 2 00 Board 3 00 Use | 10 00 | 4 00 | | 3 |
| 4 | Bowden M. | | 1 | 0 | 1 | 1 | 1 | 1 | 5 | 1 50 | 7 50 | | | 3 00 | 4 50 | | 4 |
| 5 | Bourdrier Jos. | | 1 | 1 | 0 | 0 | 0 | 1/2 | 2 1/2 | 1 50 | 3 75 | | | | 3 75 | | 5 |
| 6 | Corwin F. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 2 00 | 12 00 | 5 00 | | 5 00 | 7 00 | | 6 |
| 7 | Christiansen Ole | | 1 | 1 | 1 | 1 1/2 | 1 | 1 | 6 1/2 | 2 50 | 16 25 | | | | 16 25 | | 7 |
| 8 | Drace M. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 1 75 | 10 50 | | | | 10 50 | | 8 |
| 9 | Deidrich Geo. | | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 1 50 | 7 50 | | | | 7 50 | | 9 |
| 10 | Durand Thos. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 1 50 | 9 00 | | | | 9 00 | | 10 |

Time Book and Pay-Roll for 1904

| No | Names | S | M | T | W | T | F | S | Total Time | Received Payment in Full | No |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Anderson A. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | ✓ | 1 |
| 2 | Allington G. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | ✓ | 2 |
| 3 | Baker N. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | ✓ | 3 |
| 4 | Bowden M. | | 1 | 0 | 1 | 1 | 1 | 1 | 5 | ✓ | 4 |
| 5 | Bourdrier Jos. | | 1 | 1 | 0 | 0 | 0 | 1/2 | 2 1/2 | ✓ | 5 |
| 6 | Corwin F. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | ✓ | 6 |
| 7 | Christiansen Ole | | 1 | 1 | 1 | 1 1/2 | 1 | 1 | 6 1/2 | ✓ | 7 |
| 8 | Drace M. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | ✓ | 8 |
| 9 | Deidrich Geo. | | 1 | 1 | 1 | 1 | 1 | 1 | 5 | ✓ | 9 |
| 10 | Durand Thos. | | 1 | 1 | 1 | 1 | 1 | 1 | 6 | ✓ | 10 |

Diagram 66

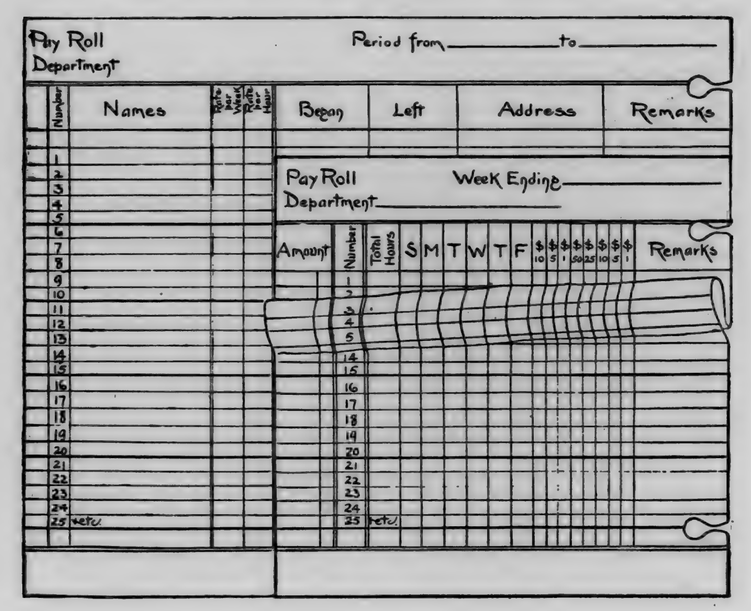
weeks, perhaps, instead of every week. Where the employes are charged with goods and cash advances, a combined pay roll and ledger is used, which is especially adapted to the requirements of plantations and lumber camps, where a general store is maintained and employes are paid by tickets representing the value of wages earned, which they can either exchange for cash at the company's office or for goods at the company's store.

Many pay roll books or sheets are arranged for signatures of employes, acknowledging receipt of wages paid. The disadvantage of this is that on signing the record each employe is in a position to see the rate of wages others are receiving, and this is frequently undesirable. While devices have been invented for the purpose of hiding all other entries on the pay roll except that of the employe signing it (see illustration), we think the best plan is to issue tickets to each employe, the tickets stating the amount of wages due and the instruction that on receipting same and presenting it to the cashier the amount will be paid. These receipts can then be filed away as vouchers or pasted on the pay roll book or sheet.

#### A LOOSE-LEAF PAY-ROLL.

A Loose-Leaf Pay-Roll form is submitted which will be found very satisfactory for general use and is designed particularly to meet the requirements of factories where it is desired to check the total time with the recapitulation of work tickets.

The time sheet for each week is made up independently and is sent to the cost clerk, who compares each workman's time with that reported as employed


Pay Roll
Department
Period from _____ to _____

| Number | Names | Rate per Week | Rate per Day | Rate per Hour | Began | Left | Address | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | Retd | | | | | | | |

Pay Roll Week Ending _____
Department _____

| Amount | Number | Total Hours | S | M | T | W | T | F | $10 | $5 | $1 | 50¢ | 25¢ | 10¢ | 5¢ | 1¢ | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | |
| | 14 | | | | | | | | | | | | | | | | |
| | 15 | | | | | | | | | | | | | | | | |
| | 16 | | | | | | | | | | | | | | | | |
| | 17 | | | | | | | | | | | | | | | | |
| | 18 | | | | | | | | | | | | | | | | |
| | 19 | | | | | | | | | | | | | | | | |
| | 20 | | | | | | | | | | | | | | | | |
| | 21 | | | | | | | | | | | | | | | | |
| | 22 | | | | | | | | | | | | | | | | |
| | 23 | | | | | | | | | | | | | | | | |
| | 24 | | | | | | | | | | | | | | | | |
| | 25 | Retd | | | | | | | | | | | | | | | |

on the various jobs. The total of these should agree with the total hours entered on the pay roll, thereby providing an absolute check on the accuracy of the same.

By having the binding edge on the right, one name sheet is sufficient for several weeks and the time sheets can easily be inserted in the proper place, preparatory to the completion of the pay roll.

A new name sheet can be made out at stated periods or whenever changes in employes render it desirable. The time sheets are allowed to remain in their proper place, week after week, having the most recent one always on the top and when a new name sheet is made out the old one is folded over lengthwise to the same width as the time sheets it covers, and all are filed away in a permanent binder. In factories where a large number of workmen are employed, a separate sheet is used for each department and numbered accordingly.

The distribution of amounts into denominations is a great convenience, as by this means the exact amount required in each denomination may be procured, thereby facilitating the filling of pay envelopes without the probability of a shortage or oversupply of change.

The cross footing of these columns also provides a check on the accuracy of the total footing.





WEEK ENDING SEPT. 9

| No. | Name | Amount | Rate | Total Hours | MANUFACTURING M T W T F S | Hours | Amount | JOBBING M T W T F S | Hours | Amount | FACTORY EXPENSE M T W T F S | Hours | Amount | SALES Amt | CLERICAL Amt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | J. Jones | 12 | 20 | 60 | | | | | | | 10 10 10 10 10 10 | 60 | 12 | | |
| 2 | C. Clark | 12 | 20 | 60 | | | | | | | 10 10 10 10 10 10 | 60 | 12 | | |
| 3 | J. John | 9 | 18 | 50 | | | | | | | 10 10 10 10 10 10 | 50 | 9 | | |
| 4 | C. Hughs | 4 50 | 15 | 30 | | | | | | | 6 10 10 10 10 | 30 | 4 50 | | |
| 5 | L. Small | 8 | 20 | 40 | | | | | | | 10 10 10 10 | 40 | 8 | | |

Date Oct 1-07 In Shop Called by G. To K. See O. No. _____ No. 6900
Factory Expense

| | | Sub | Class | Rate | Hours Total | 9 | DATE AND HOURS 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 00 | J. Jones | | 15 | 20 | 90 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 18 | C. Clark | | | 20 | 90 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 9 | J. John | | | 18 | 50 | | | | | | 10 | 10 | 10 | 10 | 10 |
| 8 | L. Small | | | 20 | 40 | | | | | | | 10 | 10 | 10 | 10 |
| 4 50 | C. Hughs | | | 15 | 30 | | | | | | | | 10 | 10 | 10 |
| 57 50 | | | | | | | | | | | | | | | |

NAME Henderson F. H — DEPT. H — NO. 542
ENTERED EMPLOY Sept. 7-07 — 149 Maple Street
SALARY 20.00

| WEEK ENDING | DAYS IN | CHARGES | PAID | SALARY | V | NOTES |
|---|---|---|---|---|---|---|
| 1907 | | | | | | |
| 9/12 | 6 | | | 15 47 | | |
| 9/19 | 6 | 1 Tn | 18 Tn | 20 - | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| TOTALS | | | | | | FORWARD |

(810) DEPARTMENT STORE PAY-ROLL.

The card is designed to fit the regulation document file, and is ruled. At the top of the card is a space for the name of the employe, and address if desired, date of entering employe, rate of salary, clock number and department to which assigned.

The rulings and headings on the card are practically self-explanatory. The first column allows for the date of the last day of the week—or pay day; the second records the number of pay days; the third the charges for materials, merchandise, etc., against the employe; the fifth the amount due the employe and charged to the pay roll, and the fourth is the difference between columns 3 and 5.

The cards may be filed numerically, alphabetically or by departments representing the accounts in the general ledger, to which the pay roll is to be charged.

For example, take the departmental method. Guides are printed to represent the several accounts in the general ledger, viz.: executive, general, advertising, manufacturing, department, etc. Back of these guides are filed the cards of all employes assigned to that department—preferably in alphabetical order. If an employe is transferred from one department to another, transfer the card also. If an employe is out, or leaves, take out his card and place it in the "inactive tray." This method keeps the pay roll always active, and shows at all times the employes in any given department.

### SYSTEM IS SIMPLE IN ACTUAL OPERATION.

This system is very simple in actual operation. The date is first entered, the time then extended in the "days in" column from the time card or time sheet (according to the method used in keeping time), and the amount due the employe entered in the "salary" column. After the charges have been entered in the "charges" column and the difference between this amount and that in the "salary" column extended, the pay roll is ready to be made up. In the event of there being no charges to the employe, the only column used is the "salary."

In putting up the pay roll, the paymaster places the cards in front of him and arranges his money convenient to his reach. Each card is then considered individually, and the amount extended in the "paid" column, is made up and passed over to an assistant, who recounts the money, calls back the amount, and places it in an envelope. This process continues throughout the pay roll.

After the money is "put up," the pay roll is ready to foot up and summarize. Let us presume for the sake of illustration that we have our salaries divided into seven accounts: executive, general, office, advertising, team, manufacturing and departments, and the department salaries are sub-divided into departments A., B., and C. We proceed to list on the adding machine all cards back of each guide. These totals are summarized under their respective headings, and the result constitutes our record of salaries paid out; already departmentized for the posting to the general ledger.

Time may be saved by keeping a supplement of the pay roll on small 3 x 5 cards bearing only the name or number of each employe, arranged in the same order as the pay roll cards. From this list the office boy can address the envelopes without coming in contact with the actual pay roll, keeping the envelopes in the same order as the cards. This method will save a lot of time when putting up the money.

This system has the distinct advantage of having the complete record of all payments made to any one individual in one place and in compact form. If receipts are required for envelopes, the signature may be obtained on the card without exposing the balance of the roll to inquisitive eyes.





Pay Roll for Month of May 1907

| Name | No. | Total | Rate | Amount | Total | Rate | Amount | Total | Rate | Amount | Total | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| John Brown | 206 | 56 | 1.50 | 8 40 | 60 | | | 58 | 1.50 | 8 70 | 58 | 1.50 | 8 70 |
| Edw. Hyke | 207 | 60 | | | 60 | | | 60 | | | 60 | | |
| C.H. Coleman | 208 | 52 | 1.50 | 7 80 | 52 | 1.50 | 7 80 | 52 | 1.50 | 7 80 | 52 | 1.50 | 7 80 |
| Dave Kennedy | 209 | 60 | | | 60 | | | 60 | | | 60 | | |
| Chas. Thompson | 210 | 18 | 1.00 | 1 80 | 55 | 1.00 | 5 50 | 55 | 1.00 | 5 50 | 55 | 1.00 | 5 50 |
| | | | | 18 00 | | | 22 00 | | | | | | 22 00 |

FORM 1.

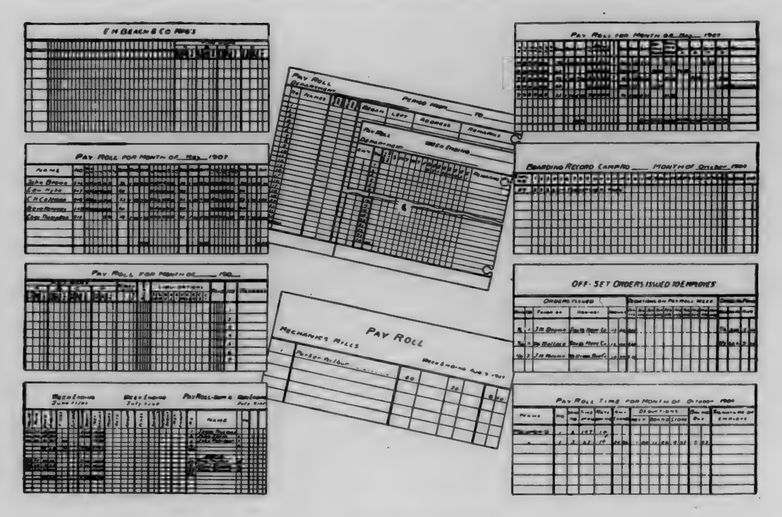
Pay Roll for Month of May 1907

| Total | Rate | Amount | Total | Rate | Amount | Amt. Paid Monthly | Total Paid Weekly | Dept. A. | Dept. B. | Dept. C. | Dept. D. | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 58 | 1.50 | 8 70 | 48 | 1.50 | 7 20 | | 41 70 | | | 41 70 | | |
| 60 | | | 290 | 1.50 | | 43 50 | 43 50 | 43 50 | | | | |
| 52 | 1.50 | 7 80 | 42 | 1.50 | 6 30 | | 37 50 | | 30 50 | | 7 00 | |
| 60 | | | 230 | 1.75 | | 50 75 | | | | | 22 30 | Resigned 5/31 |
| 55 | 1.00 | 5 50 | 46 | 1.00 | 4 60 | | 22 30 | | | | | |
| | | 22 00 | | | 18 10 | 84 25 | 102 10 | 43 50 | 30 50 | 41 70 | 29 90 | |

Weekly Pay Roll — January / February

| Name | Salary | Clk No. | Jan 5" | Jan 12" | Jan 19" | Jan 26" | Feb 2" | Feb 9" | Feb 16" | Feb 23" |
|---|---|---|---|---|---|---|---|---|---|---|
| W.Williams | 15 00 | 1 | 15 00 | 14 60 | 15 | 12 10 | 15 00 | 15 00 | | |
| D.Kennedy | 6 00 | 2 | 6 00 | 6 00 | 6 00 | 6 00 | | | | |
| F.W.Cline | 20 00 | 3 | 20 00 | 17 50 | 20 | 20 | | | | |
| J.Arnold | 25 00 | 4 | 22 75 | 25 | 16 | 25 | | | | |
| | | 5 | | | | | | | | |
| | | 6 | | | | | | | | |
| | | 7 | | | | | | | | |
| | | 8 | | | | | | | | |
| | | 9 | | | | | | | | |
| | | 10 | | | | | | | | |
| Weekly Totals | | | 507 60 | 503 20 | 492 00 | 501 60 | | | | |

The pay roll is always active, containing no "dead matter," and names are rewritten only at intervals of over 18 months—a tremendous saving of labor, time and money.—*H. C. Annable.*




## (811) PERCENTAGE.

The relation of a given amount to 100. Thus: 60 is 1/6 of 360, or 16 66/100% (60 ÷ 360 = 16.6). 40 is 1-9 of 360, or 11.11% (40 ÷ 360 = 11.11).

### (812) PERCENTAGES ON TURNOVER.

The calculation of percentages and their comparative record is one of the most valuable forms of statistics in the science of accounts. These percentages are obtained in two ways by accountants. One way is to take the percentages on sales, another is to take it on turnover. The former is quite commonly used; the latter is the more valuable.

What is a "turnover"? It is the actual cost of the goods sold. We append an illustration:

| | |
|---|---|
| Inventory—January 1st, 1908 | $18,972.45 |
| Purchases of material | 32,586.20 |
| Labor | 12,979.50 |
| | $64,538.15 |
| Deduct inventory, January 1st, 1909 | 21,465.89 |
| The turnover (or cost of goods sold) | $43,072.26 |
| Sold for | $62,985.80 |

Or a profit on the turnover of 46 23/100 per cent.





If at the end of the next year's business we find that the turnover is practically the same, but that the sales only amount to $59,945.75, or a profit on the turnover of 39 17/100 per cent., we know that the goods have been sold at a less ratio of profit than before.

Or if the turnover is more, and the amount of the sales the same, we know that the cost of manufacture has probably increased, and can intelligently trace the cause of difference.

It is evident, therefore, that all percentages of expense of any kind should be calculated on the turnover, not on the sales, because the turnover does not vary, but affords a stable basis of cost; whereas the amount of the sales will always vary according to the ratio of profit at which the goods may be sold. It may cost as much to sell goods at 25 per cent. profit as to sell them at 40 per cent. profit. Percentages based on sales will not show the correct results so clearly.

### PERCENTAGES OF PROFIT.

Usually figured on different lines of goods carried in a general country store.

### PROFITS IN SHOES.

"The gross profit in this line will run in the average store throughout the country from 25 per cent. to 50 per cent. There will, of course, be a wide variation in the various departments. In shoes a merchant usually endeavors to get the very best possible values to sell at $2, $2.50, $3 and $3.50. Some merchants will buy shoes at $1.25 to sell at $2, while others will pay as high as $1.60 to sell at this same price. Some merchants will buy shoes at $1.50 to sell at $2.50, while others will pay as high as $1.90, and in extreme cases, $2, to sell at the same price. Some merchants will pay $1.75 for shoes to retail at $3, while others will pay $2.25, $2.35, and even $2.50 for goods to sell at the same price.

### HATS AND CLOTHING.

In men's hats the margin of profit is usually higher. In most stores $9 goods are sold at $1.25; $12 goods at $1.50; $18 and $21 goods at $2.50; $24 goods at $3.50, and so on.

In clothing one merchant will pay $7.50 for a suit to retail at $10, while another will pay $5.50 or $6, and so it goes. It has been found, however, that if a man will make an average gross profit of 25 per cent. on all his lines, and do an active, aggressive business, this margin of profit will allow him plenty of room for doing some aggressive merchandising and still leave him a good net profit after all of his expenses are paid.

### GROCERIES AND HARDWARE.

Owing to the fact that groceries and hardware are not affected by fashion, and that a merchant does not suffer much loss through being compelled to mark down and close out out-of-date styles, the average profit should be lower.

In the grocery business, in view of the fact that the stock is turned very rapidly, and the amount invested is small, in comparison with the total volume of business, the gross profit should be very low."

PERCENTAGES OF CAPITAL.

A corporation borrowed $10,000 from the bank and used the amount as working capital. The president of the corporation insisted that the percentage of net profit should be computed on the corporation's investments plus amount borrowed for working caiptal, less interest paid on same.

We can liken this proposition to an investment in real estate, for a first example. If a man having $10,000 to invest decides to buy a house and realizing that he can borrow money on mortgage for five per cent. and on the other hand ought to make eight or nine per cent. on real estate investment, should buy two houses putting $5,000 in each, borrowing $5,000 for each on mortgage, would he have $20,000 invested—would his equity or capital be $20,000—would the percentage of earnings be on $20,000? The fact alone that he had borrowed money would not increase his earnings, but the percentage of earnings on capital (in the sense of "present worth") would be materially increased.

For a second example we will suppose a firm whose customers in the main require credit, perceives that its earnings may be increased and its credit firmly established, by discounting its bills (accounts payable), decides to borrow the cash to put the plan in operation. The amount borrowed is $5,000. The net earnings for the year are $5,000. Can a statement be made up by any book-keeper showing an increase in net worth for the year of $10,000? The experts tell us net worth is the same as capital, and the earnings bear a certain percentage to capital or amount invested.

Our own version is that capital represents the amount of money invested in the business, or the present worth of the firm or corporation. Borrowed money does not affect the capital in the least. It may affect the working cash fund, may in fact provide a cash fund, to take the place of working capital which has not been provided for otherwise by original subscription to the firm or by a fund created out of profits. We think that the capital of the firm is not increased. Therefore profits earned are a certain percentage on the net worth. To make our idea plain: Assume that the gentleman in question figured the percentage his way (having borrowed, say $5,000) and found that the firm had earned 15 per cent. and he informed his partner (who had a half interest in the business) of the fact(?) and paid the partner 15 per cent. on his capital, what would he do with the other seven and one-half per cent? This is on the assumption that the capital was $5,000 also.—*C. A. Rox.*

### (813) PERMANENT ASSETS.

Fixed Assets.





### (814) PERSONAL ESTATE.

A term used to designate movable property. Any property which does not come under the head of Real Estate.

### (815) PETTY CASH.

A record of small incidental expenditures always kept where total receipts are deposited in bank and all trade bills paid by check.

The best system of keeping record of petty cash is what is called the "Imprest" system, which may be described as follows:

Open an account in the general ledger with petty cash and draw a check for an amount sufficient to cover a week's or month's expenditures, charging same to petty cash account through the general cash book. Enter all expenditures as made in the petty cash book, and at the end of the week or month have such expenditures O. K.'d by a responsible person. Debit representative accounts and credit amount of such expenditures to petty cash account through the journal, and draw check to make up petty cash to original amount.

It is usually unnecessary to keep a ledger account with each class of petty expenses, as similar classes may be consolidated and charged to one ledger account. For example: Postage, stationery, car fares, donations and telegrams may be entered to the debit of office expense account, although kept separate in the petty cash analysis. Cash sales should invariably be kept separately, and on no account should they be kept in the same book as the petty disbursements, or by the person who makes the payments. This rule may, like all rules, have its exceptions, but the majority of accountants of wide experience unite in recommending such a division as preferable in many respects to keeping both receipts and payments together.

### (817) PIECE WORK.

That class of manufacturing labor which is paid for by the job or piece instead of by the hour.

### (818) PLANT.

A title used to designate permanent assets, such as buildings, machinery, horses, wagons and accessories required for purposes of manufacture.

In some businesses an account is opened with "Plant," which includes all the various items above indicated, but it is more usual to open a separate account with each kind of asset.

In some large manufacturing corporations it is the custom to keep a separate Plant ledger, in which an account is opened with each item of plant, to which is charged first cost and all costs of repairs and replacements, and to which is credited depreciation. When the repairs are made by the workmen of the corporation, debit notes are issued showing cost of material, time occupied and cost of same.

The total of the debit balances of the Plant ledger are, of course, assembled in one account in the general ledger of the corporation.

### (819) POINT.

A term used on the Stock Exchange to indicate one per cent. of par value of stock or bonds.

### (820) POOL.

A term used on the Stock Exchange to indicate sums of money placed in a common fund by various brokers, or other persons, to effect the profitable manipulation of certain investments the profits or losses consequent on such manipulation afterwards being divided among the members of the pool in proportion to the investments.

### (821) POSTING.

The act of entering debits and credits on a ledger.

This term is sometimes used to indicate the act of transferring amounts from one record to another.

An expeditious method of posting is first to fill in the ledger folios from the index in the folio column of the book from which postings are to be made, then post as nearly as possible in consecutive numerical order of pages, the fact of an item being posted being indicated by a check-mark against the page number in the folio column.

### (822) PREFERRED CREDITORS.

Those creditors who, in case of bankruptcy or assignment, are entitled to be paid in full in priority to distributing amount realised among the creditors of the estate by way of dividends.

### (823) PREFERRED DIVIDENDS.

Dividends paid to preferred creditors.

### (824) PRELIMINARY EXPENSE.

See Organization Expense.

### (825) PREMIUM.

The amount paid over and above par value to purchase stocks or other values.

The treatment of premiums on stock on books of account is not uniform, as while some accountants insist that they should be looked upon strictly as an increase of capital not divisible by way of dividends to stockholders, other authorities see no objection to crediting a special premium account, and ultimately closing this account into profit and loss. By the first method it is usual to credit such premium to a reserve account. As a matter of fact, however, it rests with the stockholders themselves to decide as to the disposition of this class of receipts, and it is quite usual to apply such premiums to offset expenses of promotion.





### (826) PREMIUMS TO CUSTOMERS.

In a department store it is frequently the custom to give premiums to customers at certain periods in order to encourage trade. When this plan is adopted the premium article should be noted on the sales book, omitting price, the amount of the tag being the amount of sale for which cash is received or to be received.

In the purchase book a division should be carried with "Premiums Given," subdivided into departments. At the end of each day the premiums given should be entered in these columns, giving the cost price, of same; this is in reality a reduction of the amount of purchases, and not a sale. At the end of the month a journal entry should be made from the purchase book, thus:

Purchases (subdivided)
Premiums
    Accounts Payable
    Purchases (subdivided)

It will be noticed that the total amount of purchases made during the month will be shown as well as the amount of premiums given during this month; it is understood, of course, that this credit to purchases is not necessarily a reduction of the current month's purchases, but a reduction of the stock on hand.

In the sales book it will be necessary to carry two divisions, one for ordinary sales, and another for premium sales (that is, sales made on which premiums were given), each being subdivided by departments. At the end of each day the total amount of each class of sales should be entered by departments, so that a total of each class of sales can be arrived at at the end of the month.

At the end of the month the premium account should be prorated over each of the different departments according to the amount of premium sales made by each during the month. This being in the nature of an advertising expense, is therefore a proper charge to Sales Department Expense. It will be noticed by following the foregoing method that the premiums given are a cost of running the business, and should not be included with the sales.

### (827) PRESENT WORTH.

Net capital. The surplus of assets over liabilities.

### (828) PRICING.

The determining of prices at which articles manufactured shall be sold is frequently arrived at by adding to cost of production, (1) A percentage of total expense for the year based on an average of this expense; (2) The percentage of profit expected to be realized.

### (829) PRIME COST.

A term used to designate cost of material entering into manufactured products, also to indicate total cost of production of a manufactured article.

## (830) PRINCIPAL.

In contracts a principal is one who, being competent to do any act for his own benefit or on his own account, confides it to another person to do for him.

The general principle which governs the liability of a principal is that the responsibility is measured by the character and extent of the authority given. The powers of the agent must be measured and determined by the application to each particular case of ordinary business principles, and sound judgment to be exercised by the agent in executing his authority, and by the court which is to deal with the case in considering the question of responsibility of the principal. Where a discretion has been conferred upon the agent the principal must abide the result of its exercise and will be held liable to third persons where it has been honestly exercised.

## (831) PRINTERS' BUSINESS ACCOUNTING.

### (831A) PRINTERS COST RECORD.

Several years' study and experimenting has resulted in the system described in this article. It is in actual use and has been found very satisfactory and accurate.

In the printing business repeat orders are frequent, and it is often necessary

**COMPOSITOR'S DAILY TIME REPORT**

Compositor..... ....., 190....

| TRACER NUMBER, OR NAME OF JOB. | TOTAL OR CHECK. | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | EXTRA TIME. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | :15 :30 :45 | :15 :30 :45 | :15 :30 :45 | :15 :30 :45 | :15 :30 :45 | :15 :30 :45 | :15 :30 :45 | :15 :30 :45 | :15 :30 :45 | |
| | | | | | | | | | | | |
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FORM 1.

to find the copy and instructions for the former order. For a tracer use a heavy, open end manilla envelope, 5½ x 13 inches, printed with full instructions on front and back, and numbered consecutively. When job is finished, the tracer is indexed and filed numerically with all copies inclosed. On all small work, each person working on the job writes his name, and the amount of time consumed, on the tracer as well as on his daily time report. On big jobs requiring work at different times, the time is collected by the foreman and entered on the tracer when the work in his department is completed.

As a check on the time, each department has its own time slips, which are checked by the foreman and sent to the office. Form 1 shows the compositor's





**MONOTYPE.**

Use of these Tickets MUST be filed on Foreman's desk each evening.

NAME, .....

Date ..... 190....

| TRACER NO. If no tracer, leave blank. | NAME OF JOB. | No. Hrs. Work'd. | KIND OF TYPE. Leaded. | KIND OF TYPE. Solid. | NO. OF ERS. Leave this Column blank. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

FORM 3.

| Tracer | Reg. | Over | Tracer | Reg. | Over | Tracer | Reg. | Over | Tracer | Reg. | Over | Tracer | Reg. | Over | Tracer |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |
| Distribution | | | Distribution | | | Distribution | | | Distribution | | | Distribution | | | Distribution |
| | | | | | | | | | | | | | | | |

FORM 4.

Job..... For..... Tracer No.....

| Work | Name | H. | M. | H. | M. | H. | M. | H. | M. | H. | M. | H. | M. | H. | M. | H. | M. | H. | M. | H. | M. | H. | M. | STOCK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Comp. H. | | | | | | | | | | | | | | | | | | | | | | | | |
| Comp. M. | | | | | | | | | | | | | | | | | | | | | | | | |
| Setter | | | | | | | | | | | | | | | | | | | | | | | | |
| Tending | | | | | | | | | | | | | | | | | | | | | | | | |
| Job Pr. | | | | | | | | | | | | | | | | | | | | | | | | |
| Stab. H. | | | | | | | | | | | | | | | | | | | | | | | | |
| Stab. M. | | | | | | | | | | | | | | | | | | | | | | | | |
| Trim. | | | | | | | | | | | | | | | | | | | | | | | | |
| Pull | | | | | | | | | | | | | | | | | | | | | | | | |
| Finish | | | | | | | | | | | | | | | | | | | | | | | | |
| Sheph. | | | | | | | | | | | | | | | | | | | | | | | | |
| Bund. | | | | | | | | | | | | | | | | | | | | | | | | |
| Pmch. | | | | | | | | | | | | | | | | | | | | | | | | |
| Cln. | | | | | | | | | | | | | | | | | | | | | | | | |
| Ruling | | | | | | | | | | | | | | | | | | | | | | | | |
| Ass't R. | | | | | | | | | | | | | | | | | | | | | | | | |
| Tak. | | | | | | | | | | | | | | | | | | | | | | | | |

FORM 5.

daily time report on which each compositor enters the tracer number and the name of the job he is working on, and indicates his time by drawing a line on the report to show the amount of time consumed, the report being divided into five-minute intervals, and the report is turned into the foreman at the end of the day.

On small jobs, the compositor enters his time on the tracer at the same

Name..... Hr.....

| Tracer No. | What Doing | H. | M. |
|---|---|---|---|
| | | | |

MATERIAL USED.

Boards..... Marble Papers.....
Leather.....
Cloth.....
Gold.....

FORM 6.

Date....., 19..
Name.....

A correct report of each day's work must be rendered below.

| Kind of Work | Time | Kind of Work |
|---|---|---|
| | 7 15 30 45 8 15 30 45 9 15 30 45 10 15 30 45 11 15 30 45 12 | |
| | 1 15 30 45 2 15 30 45 3 15 30 45 4 15 30 45 5 15 30 45 6 | |

FORM 7.

Press No..... Date.....

| Remarks and Tracer No. | Time | Impressions | Cast Back (No. | Date Performed |
|---|---|---|---|---|
| | 7 15 30 45 8 15 30 45 9 15 30 45 10 15 30 45 11 15 30 45 12 1 15 30 45 2 15 30 45 3 15 30 45 4 15 30 45 5 15 30 45 6 | | | |

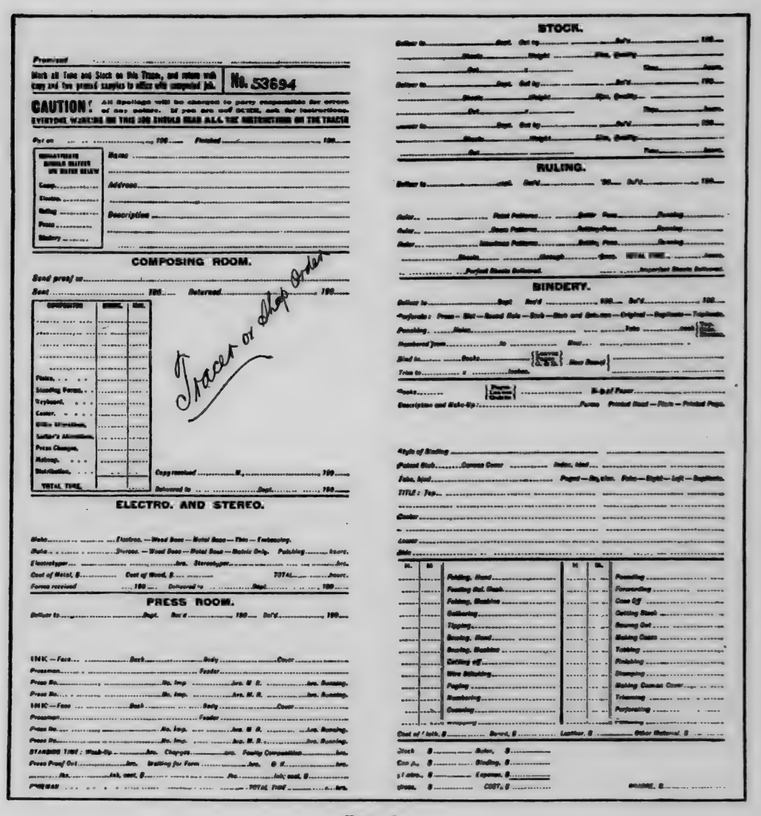
Total Impressions, ——

Feeder.....

FORM 8.








FORM 9.

time he enters it on his time report. The foreman compares the tracers with the reports each day, and each workman must account for all his time.

Form 4 is used in accounting for the time of each workman, and is sent to the office each night, the blank heading over each column being used for the name of the compositor.

Form 3 is used by the keyboard operator and casting machine operator on the monotype. This is also turned in to the foreman each night.

A form is used in the bindery for keeping the total time consumed on each job. As bindery work constitutes a number of separate operations by different persons, it is often impracticable for each person to enter the time on the tracer, although this is done when the job is small and there is room for it.

Each bindery workman uses Form 6 as a daily time report, which is turned in to the foreman each night, is checked by the tracers, and the totals entered on Form 5. When the job is completed, time as shown by Form 5 is entered on the tracer by the foreman.

Form 7 is the daily time report for the pressroom, and Form 8 is sent to the office each day and entered on our "Record of Press Performances," which shows the amount of time consumed on each job as well as the number of impressions.

Form 9 explains itself, being used in the electrotype foundry, in the same manner as in the other departments.

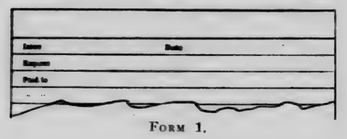
It has been found that very little time is required to keep up this system, and when used in connection with stock records and modern accounting, any printer can know what it costs to produce work, and when printers generally have this knowledge, most of their troubles will be over, and there will be more uniformity in prices.

### (832) PRINTING JOB OFFICE.

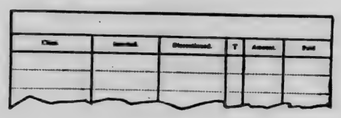
It may be as well to state at the beginning that the forms described below are those used in the office of a daily newspaper in a small city. Probably none would fill the demands of a metropolitan daily, but for a paper with a circulation of 5,000 to 30,000 the writer knows none better.

Our local sales of papers are made through newsdealers and newsboys who own their routes. They purchase checks for the required number of papers in the office and are served in the pressroom.

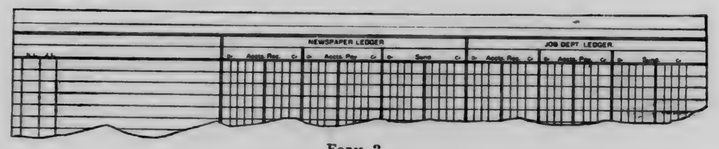
Our accounts with mail subscribers are kept on cards (Form 1) and when paid are credited on the ledger subscription account which is made up entirely of cash items. The petty and transient advertising is also entered on cards (Form 2) which are destroyed when paid, and the cash credited to advertising account. A small four drawer cabinet occupying but little space is sufficient for this purpose. The unpaid subscription and advertising cards are never reckoned in our assets and form no part of our statements, so our accounts receivable are not overstated from these two sources.



FORM 1.



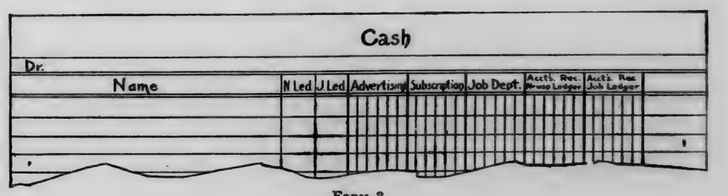
FORM 2.



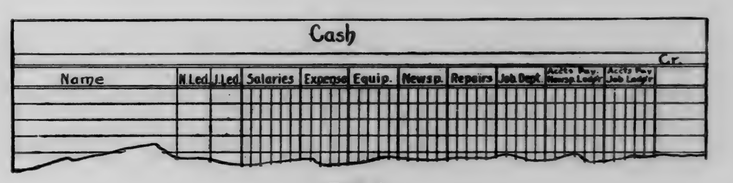

FORM 3.



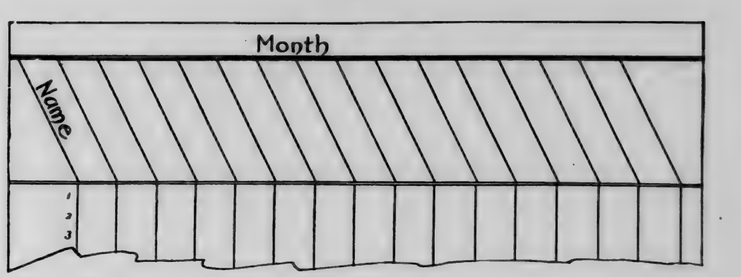





FORM 3.




FORM 4.




FORM 5.

Our books consist of two ledgers, one each for the newspaper and job departments (which are run independently) ruled for page, half page and quarter page accounts and are sectionalized to the extent that the accounts receivable are entered in the first pages of each division and the accounts payable in the last pages. In this way the two sets of accounts are not mixed through the ledgers and checking a trial balance is made easier.

The books of original entry are four, journal, cash book, advertising record and job order book. Both the former as can be seen from the pages shown (Forms 3 and 4) are ruled to accommodate the two ledgers. The journal ruling shows when the columns are footed at the end of the month, the credits and debits of accounts receivable and accounts payable, and the totals of the sundry columns check the others. This makes a trial balance possible in a few minutes and generally without error. After this is obtained the balances are drawn from the ledgers to check the postings and if a difference appears it is not a serious matter, as knowing the side of the account in error and whether cash or journal entry, it is not difficult to locate the trouble.

Make Checks Payable to The Emerson Publishing Co.

ALL BILLS PAYABLE EACH MONTH.

Ansonia, Conn., 190

M

**To The Evening Sentinel, Dr.**

THE EMERSON PUBLISHING CO., [illegible] J. M. EMERSON, Pres.

*Book and Job Printing* OF ALL KINDS *NEATLY EXECUTED.* SEND FOR ESTIMATES.

SUPERIOR ADVERTISING MEDIUM. IT GOES TO ALL THE PEOPLE OF ITS FIELD.

SUBSCRIPTION. Daily, by mail, - - $3.00 per year.

CONSTITUENCY:

| | |
|---|---|
| ANSONIA, | 12,881 |
| DERBY, | 7,930 |
| SHELTON, | 6,272 |
| SEYMOUR, | 3,641 |
| TOTAL POPULATION, | 29,724 |

Guaranteed Circulation in above and outlying towns, over 30,000 copies per week.

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

**Important Notice.**

Compare this statement with your check list at once and notify us if any differences occur.

*If the Sentinel has failed to reach you for any of the dates here checked write for duplicate copies without delay.*

Silence for 30 days will be construed as acknowledgment of accuracy of the above bill, after which no correction or deduction will be allowed.

| Days of Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Correct Insertions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inches | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Composition | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FORM 6.

ORDER BLANK

| | | | |
|---|---|---|---|
| NAME OF SALESMAN | SALESMAN'S NO. | NAME OF CUSTOMER | ORDER NO. |
| DATE ORDERED | CUSTOMER'S ORDER NO. | ADDRESS OF CUSTOMER | |
| CREDIT RATING | TERMS SOLD ON | DATE TO BE DELIVERED | DATE SHIPPED |
| QUANTITY ORDERED | DESCRIPTION OF ITEM ORDERED | | |

| MATERIALS | | | | LABOR | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESCRIPTION | | EST'D COST | ACTUAL COST | OPERATION | ESTD MINUTES | ESTIMATED RATE | ESTIMATED COST | ACTUAL MINUTES | ACTUAL RATE | ACTUAL COST | OPERATION | ESTD MINUTES | ESTIMATED RATE | ESTIMATED COST | ACTUAL MINUTES | ACTUAL COST |
| KIND OF PAPER | REMARKS | SIZE | NUMBER | Composition - Hand | | | | | | | BROUGHT FORWARD | | | | | |
| | | | | Distributing - Hand | | | | | | | Ruling | | | | | |
| | | | | Make Up | | | | | | | | | | | | |
| | | | | Lay Board | | | | | | | Paper Folding | | | | | |
| | | | | Casting | | | | | | | Paper Folding | | | | | |
| Cover | | | | Finishing - Paper | | | | | | | Binding | | | | | |
| Description | | | | Finishing - Typo | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Plates | | | | | | | | | | | Envelopes | | | | | |
| | | | | Lay Forms ready | | | | | | | Printing - Cylinder | | | | | |
| Ink - Typo | | | | | | | | | | | Printing - Platen | | | | | |
| Ink - Cylinder | | | | Make Up | | | | | | | Perforating | | | | | |
| Ink - Cover | | | | | | | | | | | Numbering | | | | | |
| | | | | Press Work - Cylinder | | | | | | | Stitching | | | | | |
| Binding Materials | | | | | | | | | | | Folding | | | | | |
| | | | | Press Work - Platen | | | | | | | Miscellaneous | | | | | |
| | | | | | | | | | | | TOTAL MATERIALS | | | | | |
| | | | | CARRIED FORWARD | | | | | | | TOTALS | | | | | |

FORM 8.





| Date | Name | Number of Articles | Description | Job Order | Kind of Stock | Color Ink | Price | Paid | Order Number | Led. Fol. | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

FORM 7.

.....

Adv. of.....

Class ..... Space.....

Check .....

Charge to.....

Per .....

FORM 9.

.....190...

Discontinue.....

Signed.....

Per.....

FORM 10.

STATEMENT OF COSTS, FOR ____ MONTHS BEGINNING ____ 190__

ENDING ____ 190__

| | OFFICE OR GENERAL | HAND COMPOSITION | MACHINE COMPOSITION | CYLINDER PRESSWORK | PLATEN PRESSWORK | BINDERY | | |
|---|---|---|---|---|---|---|---|---|
| PAY ROLL (IF TIME OF PROPRIETOR OR ANY OTHER PERSON IS TO BE CHARGED TO ANY DEPARTMENT IT SHOULD BE ENTERED ACCORDINGLY) | | | | | | | | |
| INSURANCE DIVIDE ACCORDING TO VALUE | | | | | | | | |
| RENT DIVIDE according to floor space | | | | | | | | |
| WATER DIVIDE according to number of persons in each department | | | | | | | | |
| POWER, LIGHT, HEAT DIVIDE according to horse power, gauge, meter, and use | | | | | | | | |
| ADVERTISING | | | | | | | | |
| PACKING AND DELIVERY Express and freight charges, teaming, etc. | | | | | | | | |
| SALESMAN'S COMMISSIONS Including traveling expenses | | | | | | | | |
| DEPRECIATION Divide according to value of present outfit | | | | | | | | |
| BAD DEBTS Rule one per cent added on yearly volume of sales | | | | | | | | |
| DEPARTMENT DIRECT EXPENSES | | | | | | | | |
| MACHINE METAL WASTE Per weight or value of net metal purchased | | | | | | | | |
| STOCK, HANDLING AND STORAGE | | | | | | | | |
| INTEREST Six per cent. per annum, divide according to value | | | | | | | | |
| GENERAL EXPENSE All other items not included at above | | | | | | | | |
| COST OF DEPARTMENTS For including apportionment of "General" column | | | | | | | | |
| DISTRIBUTION OF GENERAL EXPENSE Rule each according to these individual totals | | | | | | | | |
| TOTAL COST OF DEPARTMENTS Including general expense distribution | | | | | | | | |
| CHARGEABLE HOURS OF EACH DEPARTMENT FOR ____ MONTHS | | | | | | | | |
| NET COST PER HOUR Divide the total department cost as found above by total number chargeable hours in each dept. | | | | | | | | |
| TOTAL NUMBER OF EMS PRODUCED State whether type composition is charged by ems, 1000 ems, or 1000 ems | | | | | | | | |
| TOTAL NUMBER OF IMPRESSIONS PRODUCED | | | | | | | | |

Our regular contract advertising is measured each day and the space entered in the advertising record (Form 5) which is footed at the end of the month, extended and posted direct to the ledger accounts, the total of these amounts completing the double entry when credited to advertising account. The form of bills for these accounts (Form 6) includes a fac-simile of the record and enables the advertiser to check his measurements with ours.

The job order book (Form 7) explains itself and items are posted to the ledger in a similar manner to the advertising record. The job orders (Form 8) are made out when the order is entered and sent, with the copy, to the foreman.

Upon completion of the work they are returned to the office with the data of time and material entered and form the basis of charges. We have a form of duplicate order, Form 9, for all advertising, one of which is retained in the office, the other sent to the foreman, attached to the copy. A discontinuance slip (Form 10) also in duplicate is used, and I might say right here, that these duplicates have many a time saved or settled disputes when errors have occurred.

The cash slips need no explanation. They are useful in making up the cash balances daily and weekly, and check any error in entry or footing in the cash book. In the form of trial balance used special columns are marked "newspaper," "job department" and "profit and loss" for monthly balances, and make comparisons easy.

## (832A) PRODUCE BUSINESS—WHOLESALE—ACCOUNTING METHODS FOR.

The system here described is one used by the Central Michigan Produce Co., who have been transacting a very successful business since the beginning of the year 1902.

Owing to sharp competition, branch purchase houses were established in six or seven different cities and towns contiguous to the location of the main store. An agent or buyer is stationed at each of these branch houses

THIS REPORT MUST BE RENDERED DAILY

DAILY REPORT SHEET

CENTRAL MICHIGAN PRODUCE COMPANY

Date May 25 1906 W. R. Smith Agent Mt Pleasant Branch

| No Check | Amount | Doz. Eggs | Amount | Lbs Butter | Amount | Lbs Poultry | Amount | Wool | Amount | Miscel | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 642 | 81 75 | 180 | 27 00 | 342 | 54 72 | | | | | | |
| 643 | 45 64 | | | | | | | 165 | 45 91 | | |
| 646 | 105 10 | 780 | 105 10 | | | | | | | | |
| 647 | 68 08 | | | | | | | 212 | 59 36 | | |
| 648 | 49 29 | 240 | 32 20 | 78 | 12 09 | | | 33 | 8 42 | | |
| | | | | | | | | | | Eggs | 167 50 |
| | | | | | | | | | | Butter | 66 81 |
| | | | | | | | | | | Poultry | |
| | | | | | | | | | | Wool | 113 72 |
| | | | | | | | | | | Hay | |
| | | | | | | | | | | Beans | |
| Totals | 347 83 | 1200 | 167 30 | 420 | 66 81 | | | 408 | 113 72 | | 347 83 |

| | EGGS 270 doz | BUTTER 142 # | POULTRY | WOOL 1865 # |
|---|---|---|---|---|
| Amount on hand this A M | 1200 " | 420 # | | 408 # |
| " bought To-day | 1470 " | 560 # | | 2273 # |
| " on hand and bought | 1290 " | 562 # | | — |
| " shipped To day | 180 " | — | | 2273 # |
| " on hand | | | | |

EXPENSE MONEY

| Ck No | Amount | |
|---|---|---|
| 644 | 9 60 | 2400 lbs hay for horse feed |
| 645 | 4 50 | Extra help 1 man 3 days |
| 649 | 5 42 | Freight on eggs and butter shipped Today |

FORM 1.





WEEKLY REPORT SHEET

Week Ending May 26 1906

| Date | | Total Ch's | Eggs | Cost | Butter | Cost | Poultry | Cost | | |
|---|---|---|---|---|---|---|---|---|---|---|
| May | 21 | | | | | | | | | |
| " | 22 | | | | | | | | | |
| " | 23 | | | | | | | | | |
| " | 24 | | | | | | | | | |
| " | 25 | | | | | | | | | |
| " | 26 | | | | | | | | | |
| Totals | | | | | | | | | | |

Total Expenses per Week _____

_____ Agent

_____ Branch

FORM 2.

and issues checks on the treasurer of the company for all produce bought of his branch and for all expenses incurred in buying and transporting produce to the ware house at main store.

At the close of business each day, each branch house agent makes out and mails to the central office a daily report sheet, see Form 1, accompanying which is a carbon copy of each check and check stub which has been issued.

Mdse. shipped by ..... 190...

.....

Branch Office .....

SHIPPED TO

CENTRAL MICHIGAN PRODUCE CO.

*Wholesale Butter, Eggs, Poultry, Etc.*

Capital Stock $100,000.00 ALMA, MICH.

Shipped via ..... Frt. charges .....

| | | COST |
|---|---|---|
| Doz. Eggs | (a) | |
| Lbs. Butter | " | |
| " Hens | " | |
| " Springs | " | |
| " Young Cocks | " | |
| " Old Cocks | " | |
| " Young Turks | " | |
| " Tom Turks | " | |
| " Ducks | " | |
| " Geese | " | |
| " Hides | " | |
| Pr. Rabbits | " | |
| Lbs. Hay | " | |
| Bu. Potatoes | " | |
| " Beans | " | |
| Lbs. Wool | " | |
| B. Apples | " | |
| Coops Mty. | " | |
| Cases Mty. | " | |

FORM 3.

No. .....

Date ..... 190... Inv. No. .....

Send to .....

.....

Via ..... Freight ..... Express

| | | |
|---|---|---|
| ...Tubs...lbs. Creamery butter @ ..... | ..... | ..... |
| ...1 lb. Prints Creamery butter @ ..... | ..... | ..... |
| ...Tubs...lbs. I. C. butter @ ..... | ..... | ..... |
| ...1 lb. Prints I. C. butter @ ..... | ..... | ..... |
| ..Bbls...lbs. Packing stock @ ..... | ..... | ..... |
| ...Cases eggs...Dozen @ ..... | ..... | ..... |
| ...Coops, Bbls...lbs. poultry @ ..... | ..... | ..... |
| ...Lbs. Wool @ ..... | ..... | ..... |
| ...T. Hay ..... | ..... | ..... |
| ...Bu. Beans ..... | ..... | ..... |
| ..... | ..... | ..... |
| ..... | ..... | ..... |

CENTRAL MICH. PRODUCE CO.

..... 190...

.....

Lot No. .....

Car .....

FORM 4.

**ANALYTICAL PROFIT AND LOSS STATEMENT.**

.....WEEKS PERIOD ENDING.....

.....HOUSE

| | ALIVE POULTRY DRESSED | | | | EGGS | | BUTTER | | MISC. | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | WEIGHT | AMOUNT | WEIGHT | AMOUNT | DOZ | AMOUNT | WT | AMOUNT | WT | AMOUNT | AMOUNT |
| Inventory | | | | | | | | | | | |
| Purchases | | | | | | | | | | | |
| Total | | | | | | | | | | | |
| Inventory | | | | | | | | | | | |
| Sales | | | | | | | | | | | |
| Shipments | | | | | | | | | | | |
| Total | | | | | | | | | | | |
| Shrink | | | | | | | | | | | |
| Barrels | | | | | | | | | | | |
| Profit | | | | | | | | | | | |
| Loss | | | | | | | | | | | |

PERCENT PROFIT _____

STANDING FOR MONTH _____

" " YEAR _____

**EXPENSES**

STANDING BUTTER SHRINK _____

| | ALIVE POULTRY DRESSED | | EGGS | BUTTER | MISC | TOTAL |
|---|---|---|---|---|---|---|
| Labor | | | | | | |
| Supplies | | | | | | |
| Drayage | | | | | | |
| Misc. | | | | | | |
| | | | | | | |
| Op. Rent | | | | | | |
| Sal. | | | | | | |
| Adm | | | | | | |
| Phone | | | | | | |
| Light | | | | | | |
| | | | | | | |
| | | | | | | |
| Total | | | | | | |
| Profit | | | | | | |
| Loss | | | | | | |

Form 5.

These copies of each check and stub enable the central office to detect any error which might occur in figures, and to prove the correctness of the report.

When these daily report sheets from each of the branch house agents reach the central office, they are checked over and the total amount paid for produce plus the expenses in buying and delivering to warehouse is entered on the journal charging each branch house from which it came with same, and crediting the Purchase Check account. These sheets are then filed in a loose-leaf binder and kept for future reference.

At the close of each week each branch house agent makes out and mails to the central office a weekly report sheet, see Form 2, which shows the total





amount of checks issued each day, for what issued, and the amount paid for each of the different articles. This report also shows the total expenses for the week, which is pro-rated at the central office and a journal entry made, charging each of the different produce accounts with its share and crediting the branch house incurring the expense with the total amount. Accompanying this report are the freight receipts and expense bills which have been paid and charged to expense.

The produce bought by each agent is shipped to the warehouse at Alma, and for each shipment the agent sends in a shipping bill, see Form 3, which shows the quantity and the cost of each kind of produce included in the shipment; also the cost of transportation. When each of these shipments reach the warehouse, the shipping clerk makes a merchandise in-slip which shows the date, the quantity of each article and the general condition of the shipment. This slip is pinned to the agent's shipping bill and a journal entry made charging each produce account with the cost of same and crediting the total amount to the branch house from which it was received.

When the purchase checks reach the bank at Alma, upon which they are drawn, instead of charging them to the company's regular bank account, the bank lists these checks separately and the company issues a check on the regular bank account for the total amount of the purchase checks paid each day. The cash book entry shows a charge of this amount to the Purchase Check account and a credit to the bank account. The book-keeper sorts these checks and compares them with the agent's daily report sheets to see that they were paid for the same amount as that for which his branch house was charged when the check was issued.

By using a carbon paper each agent makes a duplicate of each of his reports and shipping bills, the copy of which he retains in his book as the records of his branch.

By using this system of cost accounting it is a very easy matter for the book-keeper to make a statement each month or as often as required, showing just what each branch house is doing, the amount of produce bought and the cost of the same up to the time it reaches the warehouse.

The company has a cold storage plant in connection with their warehouse, in which their eggs, butter and dressed poultry are stored until sold. The cost of operating this plant, of sorting and candling eggs, of dressing and packing poultry, of repacking butter and the cost of egg cases, butter-tubs and all other packages used must all be figured in with the cost of the produce. The expense accounts are closed up each month, pro-rated and charged to the produce accounts.

The books used in the central office are a general ledger, a sales book, an eight column cash book and an eight column journal, from each of which most of the posting is done in totals at the end of each month.

When an order for produce is received at the office an order blank, see Form 4, is made out and signed by the clerk taking the order. This is handed to the shipping clerk who sees that the produce is properly put up and shipped

as directed by the order, which he then dates, signs and returns to the office as a merchandise out-slip.

From these merchandise out-slips, invoices are made, the duplicates of which are retained in the invoice book which is also the sales book. From this sales book a charge of each shipment is posted direct to the ledger, charging each jobber or commission house to whom the produce is sold and at the end of each month a journal entry is made, crediting each of the produce accounts with the amount received for what has been sold, and making a corresponding charge in red ink of the total amount. This amount is not posted to the ledger, inasmuch as it has already been charged directly from the sales book.

At the end of each month a profit and loss statement, see Form 5, is made which shows the inventory of produce on hand on the first of the month and the cost of the total purchases of each kind of produce; the quantity and selling price of all produce sold; and the inventory of produce and its cost which is still on hand at the close of the month. This statement also shows the total expenses of the month pro-rated to the different produce accounts.

By using this simple system of accounting a vast amount of work can be accomplished and a complete record of each transaction kept by a comparatively small office force.—*C. H. Washburn.*

## (833) PROFIT.

The excess of amount received by selling over cost of articles sold.

Pecuniary gain.

The question of what are profits available for distribution was considered under the headings "Dividend" and "Depreciation," to which this subject is closely related. The main point to be considered, however, in determining profits has been summed up as follows:

1. That sales are not increased by fictitious entries representing transactions that have never been made.
2. That sales are absolute, and not on approval and therefore returnable.
3. That stock has been taken at cost price, or at a lower rate if depreciated in value subsequent to purchase.
4. That purchases entering into the manufacturing or trading of the business are fully entered into the revenue account.
5. That full depreciation of assets have been charged to profit and loss account, and that a lessening of value in leasehold property has likewise been provided for.
6. That any change in the average sales for the period have been examined and the reasons for same explained.
7. That extraordinary profits in exceptional sales are specially noted.
8. That assets (real or personal) are not inflated, but debits for repairs and other items of maintenance are charged to Profit and Loss account.





### (834) PROFITS UNDISTRIBUTED.

These should not be allowed to remain in the current Profit and Loss account, but should be transferred to Undistributed Profits account, or Surplus account, if a new Profit and Loss account is not opened each year.

### (835) GROSS PROFITS.

#### The General Averages.

The following table shows what the gross profit will average on the general dry goods lines in the majority of stores throughout the country:

| | |
|---|---|
| Dry Goods | 25 to 50 per cent. |
| Silks | 25 to 75 per cent. |
| Linens | 25 to 50 per cent. |
| White Goods | 25 to 50 per cent. |
| Wash Goods | 25 to 50 per cent. |
| Staple Cottons | 20 to 33 per cent. |
| Novelty and Fancy Goods | 33 to 100 per cent. |
| Laces and Embroideries | 25 to 50 per cent. |
| Ribbons | 20 to 50 per cent. |
| Gloves | 25 to 50 per cent. |
| Men's Furnishing Goods | 25 to 50 per cent. |
| Clothing | 30 to 60 per cent. |
| Women's Garments | 30 to 60 per cent. |
| Millinery | 50 to 100 per cent. |
| Millinery Sundries | 50 to any old per cent. |
| Muslin Underwear | 25 to 50 per cent. |
| Men's Hats | 30 to 60 per cent. |
| Shoes | 25 to 50 per cent. |
| Hosiery | 25 to 50 per cent. |
| Knit Underwear | 25 to 50 per cent. |

Of course, there are cases where the percentages will go either above or below the figures we have indicated, but these will show the general averages.

PROFITS IN BUSINESS.

#### Where is the Danger Line in Business Profits or Where do Profits in Business Cease and Losses Begin?

A complete answer is contained in the following statistics obtained from the books of a manufacturing business.

| | | |
|---|---|---|
| Sales for year 1907 | $252,000.00 | |
| Net profits | 20,000.00 | |
| MANUFACTURING COST OF SALES. | | |
| Materials | $84,000.00 | |
| Labor, producing | 66,000.00 | |
| Labor, non-producing | 12,000.00 | |
| Factory expense | 30,000.00 | |
| | | $192,000.00 |
| General expense | | 18,000.00 |
| Selling expense | | 22,000.00 |
| The foregoing give the monthly sales at | | $21,000.00 |
| Labor and material costs at | | 12,500.00 |

EXPENSES.

| | |
|---|---|
| Labor, non-producing | $12,000.00 |
| Factory expense | 30,000.00 |
| General expense | 18,000.00 |
| Selling expense | 22,000.00 |
| | $82,000.00 |
| Or monthly | $6,833.33 |

For this purpose it is assumed that the expenses are not decreased with a proportionate decrease in sales, but are increased 10 per cent. on each $1,000 of sales above normal, namely $21,000.

MONTHLY TABLE OF COSTS, EXPENSE, PROFITS AND SALES.

| Material and Labor Costs. | Expenses. | Net Profit. | Sales. |
|---|---|---|---|
| $10,119.04 | $6,833.33 | $ 47.63 | $17,000.00 |
| 10,714.28 | 6,833.33 | 452.39 | 18,000.00 |
| 11,309.52 | 6,833.33 | 857.15 | 19,000.00 |
| 11,904.76 | 6,833.33 | 1,261.91 | 20,000.00 |
| 12,500.00 | 6,833.33 | 1,666.67 | 21,000.00 |
| 13,095.24 | 6,933.33 | 1,971.43 | 22,000.00 |
| 13,690.48 | 7,033.33 | 2,276.19 | 23,000.00 |
| 14,285.72 | 7,133.33 | 2,580.95 | 24,000.00 |
| 14,880.96 | 7,233.33 | 2,885.71 | 25,000.00 |
| 15,476.20 | 7,333.33 | 3,190.47 | 26,000.00 |
| 16,071.44 | 7,433.33 | 3,495.23 | 27,000.00 |
| 16,666.68 | 7,533.33 | 3,799.99 | 28,000.00 |
| 17,261.92 | 7,633.33 | 4,104.75 | 29,000.00 |
| 17,857.16 | 7,733.33 | 4,409.51 | 30,000.00 |

Making the necessary computations it will be seen that the cost of materials and labor per $1,000 sales are $595.24, therefore the profits are reduced or increased by $404.76, less $100 for increased expenses over $21,000. The danger-line is at $17,000 monthly sales, as the profit shown at that point is only $47.63.

Any manufacturer can compute his danger-line, if his books will give him the necessary facts, which will put him in position to at all times know if he is making or losing money.

### (836) PROOF.

A verification. Thus, the check figure is sometimes designated a proof figure.

### (837) PROOF BOOK.

A title given to a book in which the totals of ledger accounts are recapitulated for the purpose of obtaining the grand total for comparison with the balance of the Adjustment or Controlling account with the ledger, the work on which is being proved.





### (838) PURCHASE.

"That which is obtained for a price in money or its equivalent."
"The act of seeking and acquiring property."

### (839) PURCHASE ACCOUNT.

An account with creditors.

### (840) PURCHASE JOURNAL.

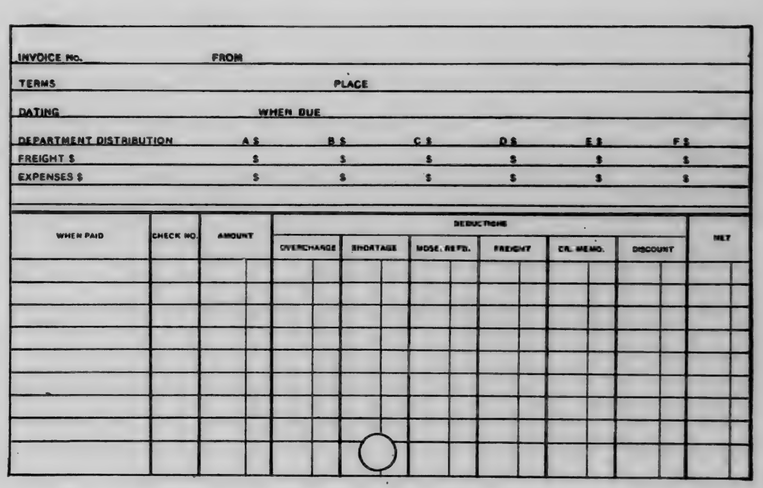
A journal devoted to entries relating to Accounts Payable.

### (841) PURCHASE LEDGER.

A creditor's ledger.
An Accounts Payable ledger.

### (842) PURCHASE RECORD.

Synonymous with Purchase Journal or Accounts Payable Register.
A bought invoice record.
A record of invoices received.
See Voucher Record.

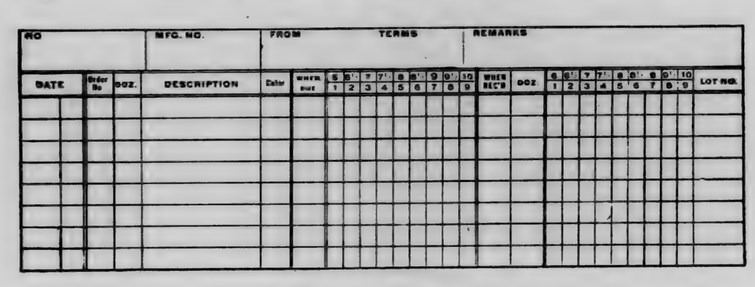


INVOICE NO. FROM
TERMS PLACE
DATING WHEN DUE

| DEPARTMENT DISTRIBUTION | A $ | B $ | C $ | D $ | E $ | F $ |
|---|---|---|---|---|---|---|
| FREIGHT $ | $ | $ | $ | $ | $ | $ |
| EXPENSES $ | $ | $ | $ | $ | $ | $ |

| WHEN PAID | CHECK NO. | AMOUNT | DEDUCTIONS | | | | | | NET |
|---|---|---|---|---|---|---|---|---|---|
| | | | OVERCHARGE | SHORTAGE | MDSE. RET'D. | FREIGHT | CR. MEMO. | DISCOUNT | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

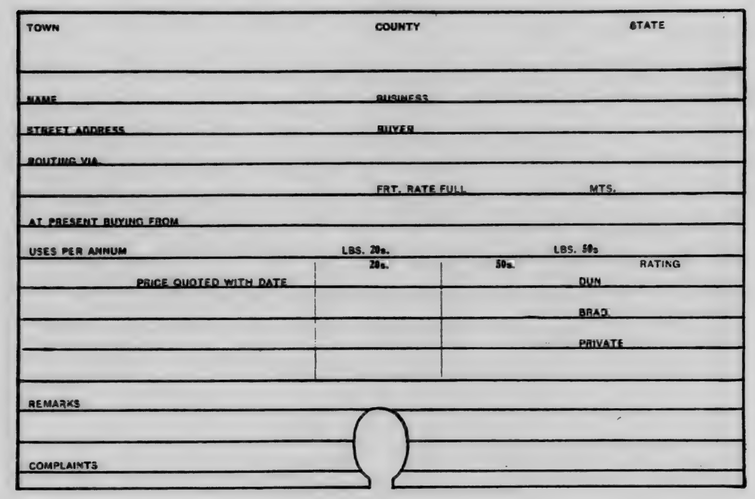
DEPARTMENT STORE.




RETAIL SHOES.

## (843) QUOTATION RECORD.

A record of prices of articles or material required; either received from vendors or furnished to customers.




## (844) RAILROAD ACCOUNTING.

See Steam Railroads.
See Street Railroads.

## (845) RAW MATERIAL.

Material used in process of manufacture while in its original condition.





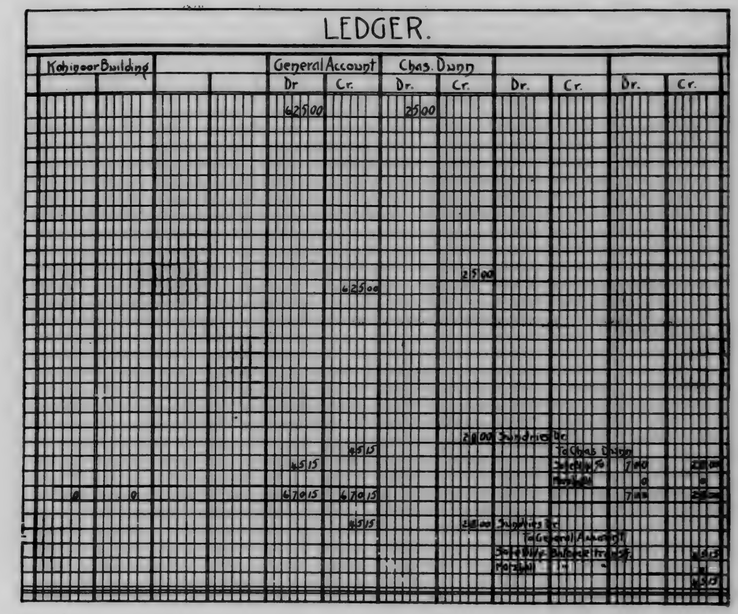
## (846) REAL ESTATE.

A term used to designate immovable property; usually confined to land and buildings erected thereon.

### (847) REAL ESTATE SYSTEMS.

In explaining the system presented, the lease is first in importance; then the details of this lease are spread on the Rent Ledger.

The bill is sent out on the last day of the preceding month and when remittance is sent in with the bill the stub is retained and attached to the check, for the guidance of the cashier. The next entry is the Cash Book, which you will observe is cash book, journal and ledger, all in one book. The rents are posted from this cash book to the rent ledger. Any number of accounts can be carried in this way. At the end of each month the commissions and net balances are journalized and transferred to the General Account, the balance in this account being remitted by draft to the client, as shown in the



Safe Building — Rent Ledger

| Room No. | Tenant's Name | Remarks | Term of Lease From | Term of Lease Expires | Annual Rental | May | Ar-rears | Current Monthly | Cr. |
|---|---|---|---|---|---|---|---|---|---|
| Store #146 3rd St. | Brown Chemical Co. | | May 1 '04 | Apr 30 '05 | 1800 | For'd | | | |
| | | | | | | Rent | | 150 | |
| | | | | | | Ar-rears | | | |
| | | | | | | " | | | |
| 2nd Fl. 146 3rd. | Joseph Jackson | | May 1 '04 | Apr 30 '05 | 900 | Rent | | 75 | |
| | | | | | | Ar-rears | | | |
| | | | | | | " | | | |
| 3rd Fl. 146 3rd. | Chas. Smith | | May 1 '04 | Apr 30 '05 | 600 | Rent | | 50 | |
| | | | | | | Ar-rears | | | |
| | | | | | | " | | | |
| 4th Fl. | John Martin | Option to renew for 1yr | May 1 '04 | Apr 30 '05 | 600 | Rent | | 50 | |
| | | | | | | Ar-rears | | | |
| | | | | | | " | | | |
| 5th & 6th Fl. | Samuel Jones | | May 1 '04 | Apr 30 '05 | 1200 | Rent | | 100 | |
| | | | | | | Ar-rears | | | |
| | | | | | | " | | | |
| 7th & Bsmt. | Joseph Leonard | | May 1 '04 | Apr 30 '05 | 2700 | Rent | | 225 | |
| | | | | | | Ar-rears | | | |
| | | | | | | " | | | |
| 8th Fl. | Cambell & Co. | | May 1 '04 | Apr 30 '05 | 600 | Rent | | 50 | |
| | | | | | | Ar-rears | | | |
| | | | | | | " | | | |

Dec. Jan. Feb.

General Statement. The net balance of each building appears on this statement and the draft balances the account.

To show in detail the receipts and expense of each property, Shop Summary and General Summary explains to the client how all the money is handled. The Expense and Receipts classifies all the different items. Taxes and insurance may be divided into 12 instalments, if preferred.

The ledger is closed and balanced each month. The arrears on the first of the month, added to the charge for the current month, with the payment

Make Cheque Payable to the Order of Frederick Bowen, At Office of Chas. Dunn, 201 Marshall Blk

Chicago, February 1, 1905

M Brown Chemical Co.

To FREDERICK BOWEN, Dr.

Rent of Room No. Store #146-3rd St. In Safe Building

| | |
|---|---|
| For Month of February, 1905 | $150.00 |
| | $ |
| Extras | $ |
| Arrears | $ |
| Received Payment | $150.00 |

Frederick Bowen,
Per

Do Not Detach this Coupon

Chicago, 2-1, 190

Brown Chem. Co.

Store #146 3rd St.

Frederick Bowen, Safe Building

Rent for Feb 1905 $150.

Extras $

Arrears $

$150.





CASH.

| Date 1905 | | | Bank No. | Month | Cash Dr. | Cash Cr. | Safe Building Dr. Expense | Safe Building Cr. Rents | Marshall Building Dr. Expense | Marshall Building Cr. Rents |
|---|---|---|---|---|---|---|---|---|---|---|
| Jan 1 | | Balance | | | 650 | | | | | |
| 10 | Safe | Brown Chemical Co. | | Jan. | 150 | | | 150 | | |
| 20 | | Joseph Jackson | | " | 75 | | | 75 | | |
| 30 | | Charles Smith | | Dec. | 50 | | | 50 | | |
| | Marshall | Name | | " | 0 | | | | | |
| 31 | Safe | John Martin | | Jan. | 50 | | | 50 | | |
| | | Samuel Jones | | Dec. | 100 | | | 100 | | |
| | Marshall | Name | | " | 0 | | | | | |
| | Safe | Joseph Leonard | | Jan. | 225 | | | 225 | | |
| | | Cambell & Co. | | " | 50 | | | 50 | | |
| Jan 10 | Safe | General Ins Co. Nov. 21-Dec 22 | 1 | | | 860 | 860 | | | |
| | | City Elec. Lt. Co. Dec. | 2 | | | 1020 | 1020 | | | |
| | | Evans Coal Co. " Coal | 3 | | | 140 | 140 | | | |
| 15 | Gen. A/c | Chas. Dunn Com. on Dec. | 3¼ | | | 25 | | | | |
| | Gen " | N.Y. Draft Balance " | 3½ | | | 625 | | | | |
| | Safe | Chas. Dunn Shops Repairs | 4 | | | 3380 | 3380 | | | |
| 20 | | City of Chicago water rates Dec | 5 | | | 275 | 275 | | | |
| | | Otis Elev. Co. Elevator Rprs. | 6 | | | 450 | 450 | | | |
| 25 | | John Mandel Repair walk | 7 | | | 500 | 500 | | | |
| | | George Witt Lettering | 8 | | | 200 | 200 | | | |
| 31 | | Pay Roll December | 9 | | | 225 | 225 | | | |
| | | County Collr. Taxes 1904 | 10 | | | 120 | 120 | | | |
| | | Northern Ins. Co. Fire Ins. | 11 | | | 75 | 75 | | | |
| | | | | | | 12685 | | | | |
| | | | | | | | 2800 | | | |
| | | | | | | | 515 | | | |
| | | | | | | 715 | | | | |
| | | | | | 1350 | 1350 | 700 | 700 | 0 | |
| | | | | | | 715 | | | | |

made during the month, leaves the balance in arrears which is carried forward to the next month in red. Each page proves itself and errors are impossible if the postings are correct.

A shop is maintained by the agent where carpenters, plumbers, electricians, painters, steamfitters, etc., are employed, and the work is supplied to the building at cost with a small per cent. added for clerical work, shop quarters, etc.

The agent keeps a book in which he notes the dates rooms are calcimined. The chief janitor can tell at a glance when each room is scrubbed. This is of value in many ways, particularly when leases are being renewed and all manner of complaints are made in order to offset any arguments in favor of an advanced rental.

Vouchers for each item appearing on the General Summary are inclosed with the statement to client, checked by the book-keeper and approved by the agent. Voucher and check numbers are always the same.

Each building is in charge of a special man known as a renting agent whose duty is to collect the rents and look after the interests of the tenants of the building in general.

The chief janitor and engineer are under the superintendent of buildings, who recommends repairs, changes in the building and improvement of service in janitor and engineering departments.

MONTHLY STATEMENT

Safe Building Frederick Bowen. In Account with Charles Dunn. Agent

| Date 1905 | Receipts | Room | Month | Rents | Rent in Arrear | Month | | Date 1905 | Expenditures | | Voucher No. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 31. | Brown Chemical Co. | Store # 146 E 3rd | Jan. | 150.00 | | | | Jan. 10 | General Gas Co. | Nov. 21-Dec. 22. | | 1. | 8.60 |
| | | | | | | | | | City Elec. Lt. Co. | December. | | 2 | 10.20 |
| | Jos. Jackson, | 2nd. Floor " " | " | 75. | | | | | Evans Coal Co. | Dec. Coal. | | 3 | 140. |
| | Chas. Smith, | 3rd " " " | Dec | 30. | 50.00 | Jan. | | 15 | Chas. Dugg. | Shop. Carpg. Roofg. | 10.25 | | |
| | | | | | | | | | | Plumbers | 9.50 | | |
| | John Martin, | 4th. " " " | Jan. | 30. | | | | | | Electrical | 2.30 | | |
| | | | | | | | | | | Steam | 2.00 | | |
| | Samuel Jones. | 5-6 " " " | Dec | 100 | 100.00 | Jan. | | | | Masons | 3.75 | | |
| | | | | | | | | | | Janitors Supplies | 2.50 | | |
| | | | | | | | | | | Engineers " | 1.50 | | |
| | Joseph Leonard. | 7th. & Bsmt. " " | Jan. | 225 | | | | | | Misc | 2. | 4 | 33.80 |
| | | | | | | | | 20 | City of Chgo. | Water rates, Dec. | | 5 | 2.75 |
| | Cambell & Co. | 8th. floor | " | 30. | | | | | Otis Elev. Co. | Elev. rprs. | | 6 | 4.50 |
| | | | | | | | | | Geo. Witt | Letter. Bull Bd | | 7 | 2. |
| | | | | | | | | 25 | John Mogdal | Rpr. walk | | 8 | 5 |
| | | | | | | | | 30 | Pay Roll | Janitors | 100. | | |
| | | | | | | | | | | Elev. men | 30. | | |
| | | | | | | | | | | Engr. & Firemen | 38. | | |
| | | | | | | | | | | Watchmen | 25. | 9 | 225 |
| | | | | | | | | | County Collector | Taxes 1904 | | 10 | 120. |
| | | | | | | | | | No. Ins. Co. | Fire Ins. | | 11 | 75 |
| | | | | | | | | | | | | | 676.85 |
| | | | | | | | | | Chas Dunn 4% | $700.00 | | | 28. |
| | | | | | | | | | | | | | 648.85 |
| | | | | | | | | | Balance at credit | | | | 85.15 |
| | | | | 700.00 | 150.00 | | | | | | | | 700.00 |

The Rent Roll Book is kept from year to year showing rentals per square foot and increases over previous years.—*A. Schoenlaub.*

(847A) REAL ESTATE INSTALMENTS.

Herewith is submitted a method for arriving at the amount of interest to be paid, and the number of payments necessary, where property is purchased upon the instalment plan.

Take a case where the purchaser is required to pay down a certain percentage (say 10 per cent.) of the purchase price, and thereafter make certain payments per month (say, $1 per $100 of the purchase price) the interest at the close of each year being calculated upon the balance of purchase price due at the beginning of that year, and the difference between such interest figured at the stipulated rate (say six per cent.) and the total amount paid during the course of the year by instalments is applied to reducing the principal.

ILLUSTRATION.

House and lot worth $4,500; cash payment down, $450; balance ($4,050) payable $45 per month; total payment for year $540; interest on $4,050 at six





Mr. Frederick Bowen

To CHARLES DUNN AGENT, Dr.

Account Repairs. Date January. 1905. Building Safe.

| Nature of Work | Location | Order | Carpenters & Laborers | Painters | Plumbers | Electricians | Masons and Plasterers | Blacksmiths and steam-fitters | Elevator Repair | Miscellaneous | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Doors locks etc.- | All Floors General | | 3.25 | | | | | | | | 3.25 |
| Closets, urinals, faucets, sinks, etc- | " " " | | | | 2.50 | | | | | | 2.50 |
| Circuits, sockets, switchs, fuses, etc- | " " " | | | | | .75 | | | | | .75 |
| Repairing windows, sash and replacing glass; touching up and finishing woodwork in private office,- | 6th. Floor | 657 | 4.50 | 2.50 | | | | | | | 7.00 |
| Replacing closet bowl and repairing faucets,- | 7th Floor | 896 | | | 4.75 | | | | | | 4.75 |
| Clearing urinals and repairing leaking supply pipes, patching plaster after plumber; | 1st-3rd-5th Flrs | 920 | | | 2.25 | | 1.00 | | | | 3.25 |
| Repairing sockets, and rewiring bracket, | 2nd. Floor | 640 | | | | 1.75 | | | | | 1.75 |
| Repacking valves,- | 1st-2nd-5th-6th. | 604 | | | | | | 2.00 | | | 2.00 |
| Repairing fire arch,- | Boiler | 210 | | | | | 2.75 | | | | 2.75 |
| | | | 7.75 | 2.50 | 9.50 | 2.50 | 3.75 | 2.00 | | | 28.00 |
| To supplies for | (Janitor. (Engineer. | | | | | | | | | 2.50 / 1.30 | |
| To supplies for Building repairs | Misc. | | | | | | | | | 2.00 | 5.80 |
| | | | 7.75 | 2.50 | 9.50 | 2.50 | 3.75 | 2.00 | | 5.80 | 33.80 |

per cent. is $243; amount applied on reduction of principal, $297; interest for second year to be paid on $3,753.

To arrive at a short method for solving such problems arithmetically it is necessary to resort to tables of compound interest and annuities, and any persons or company doing much of this instalment business should provide themselves with such tables, which can be found in some of the higher arithmetics or in some insurance manuals. For the purpose of illustrating the rule given below, I have copied off a portion of such tables, "A" showing the "Present Worth" of an annuity of $1 per year, payable at the end of each year, and figuring interest at six per cent. per annum, compounded annually, for a period ranging from one to 15 years. "B" shows what $1 will amount to at the end of from one to 15 years, with compound interest at six per cent. per annum compounded annually. (Care must be taken to see that the tables secured are compounded annually, and not semi-annually, as the latter could not be used in the rules given below, without some modification.)

In giving the different sections of the rule for determining the desired result, I will at the same time illustrate same by working out the illustration given above.

## Receipts and Expenditures of ..... Building

For month of ..... 190.....

| | | | EXPENDITURES | RECEIPTS | NET RECEIPTS |
|---|---|---|---|---|---|
| **RECEIPTS** | | | | | |
| | Rents Received | | | | |
| | Rents Due but Not Collected | | | | |
| **EXPENDITURES** | | | | | |
| | Taxes | | | | |
| | Insurance | | | | |
| WAGES— | Janitor Service | | | | |
| | Elevator Men | | | | |
| | Engineer and Firemen | | | | |
| | Superintendent and Watchman | | | | |
| FUEL, LIGHT AND WATER— | Coal and Carting Ashes | | | | |
| | Gas | | | | |
| | Electric Light | | | | |
| | Water Rates | | | | |
| SUPPLIES— | Janitor | | | | |
| | Engineer | | | | |
| MACHINERY REPAIRS— | Heating Apparatus | | | | |
| | Elevators | | | | |
| | Inspection | | | | |
| BUILDING REPAIRS— | Carpentry and Painting | | | | |
| | Plumbing | | | | |
| | Glazing | | | | |
| | Gas and Electric Fitting | | | | |
| | Calc. | | | | |
| | Hardware and Woodwork | | | | |
| | Plastering | | | | |
| | Miscellaneous | | | | |
| MISCELLANEOUS EXPENSES— | Advertising and Printing | | | | |
| | Legal | | | | |
| | Cartage | | | | |
| | Miscellaneous | | | | |
| MANAGEMENT | | | | | |
| ALTERATIONS | | | | | |
| NET RUNNING EXPENSES | | | | | |
| RENTS RECEIVED | | | | | |
| NET RECEIPTS | | | | | |

*Note.*—The items of Taxes and Insurance may be divided into 12 equal parts and charged monthly, if preferred. This is perhaps the better way.

Form 7
1106



Mason Buildings.
Rent Roll Corrected to May 1st 1904

| Premises | Tenants | Area in Square Feet | Rent with Janitor Service | Rate per Sq. Ft. | Power and Special Steam | Gross Rent | Term of Lease: Begins | Term of Lease: Ends | |
|---|---|---|---|---|---|---|---|---|---|
| Stove | Brown Chemical Co. | 1237 | 1800 | 1.46 | 120 | 1920 | 1904 | 1906 | |
| 1st. floor | | | | | | | | | |
| 2ed. " | | | | | | | | | |
| 3rd. " | | | | | | | | | |
| 4th. " | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

RULE.

To find the number of equal monthly instalments necessary to liquidate a certain principal, interest at the close of each year to be calculated at a given rate upon the balance of principal due at the beginning of that year, and the difference between such interest and the total amount paid during the course of the year by said instalments to be applied to reducing the principal.

(a) Divide the principal by the amount of twelve monthly payments.

$4,050 ÷ 540 = 7.500 000

(b) Refer to table of present worth of annuities ("A") of $1 at given rate and find the number of years for which the present worth is nearest and lower than the result of (a). This will be the number of years such instalments will have to be paid.

10 years 7.360 087

(c) Subtract the "present worth" for the number of years determined by (b) from the result of (a)

7.500 000
7.360 087
.139 913

(d) Multiply the remainder by the amount (Table "B") of $1 compounded annually at given rate for the number of years determined by (b)

.139 913 × 1.709 848 = .250584

(e) Multiply the result by the amount of the yearly installment (12 monthly installments) and the result will be the balance of principal due at the expiration of the number of years as determined by (b).

.250584 × 540 = $135.32

From which it will be seen that in the illustration given it will require 10 years and 3 months, with a fraction over, to liquidate the debt upon terms stated.

Where sales are all made on same basis as above, viz,, 10 per cent. of purchase price cash, balance $1 per month for each $100 of purchase price, it would not be necessary in each case to work it out as above, but simply multiply the amount of monthly installment by 3.0072 (135.32 ÷ 45) which would represent the amount of principal due at expiration of ten years.

In some cases of these installment agreements, interest is credited upon each installment as paid; thus in the illustration cited above—balance, $4,050; interest on same, one month at six per cent. per annum, $20.25; monthly payment, $45; $45—$20.25 equals $24.75, applied on reduction of principal; next month, interest at six per cent. on $4,025.25 for one month equals $20.13; $45—$20.13 equals $24.87, applied on reduction of principal, etc.

This plan is more equitable for the purchaser, as he gets full benefit of interest upon his monthly installments as paid, and it will be seen from the illustration given in connection with the following rule that this interest on monthly payments effects a saving to the purchaser of about 3⅕ monthly installments, or $144.

It, however, is impracticable to arrive at a short solution arithmetically of a problem of this character, as it would necessitate the use of tables similar to "A" and "B" in the previous problem, but figured at interest compounded monthly and carried out to 125 or 130 months.

| "A" PRESENT WORTH of an annuity of $1.00 payable at the end of each year at 6 per cent. compounded annually | | "B" AMOUNT OF $1.00 compounded annually at 6 per cent. per annum. | |
|---|---|---|---|
| Years. | Amount. | Amount. | Years. |
| 1 | $0.943 396 | $1.060 000 | 1 |
| 2 | 1.833 393 | 1.123 600 | 2 |
| 3 | 2.673 012 | 1.191 016 | 3 |
| 4 | 3.465 106 | 1.262 477 | 4 |
| 5 | 4.212 364 | 1.338 226 | 5 |
| 6 | 4.917 324 | 1.418 519 | 6 |
| 7 | 5.582 381 | 1.503 030 | 7 |
| 8 | 6.209 744 | 1.593 848 | 8 |
| 9 | 6.801 692 | 1.689 479 | 9 |
| 10 | 7.360 087 | 1.790 848 | 10 |
| 11 | 7.886 875 | 1.898 299 | 11 |
| 12 | 8.383 844 | 2.012 197 | 12 |
| 13 | 8.852 683 | 2.132 928 | 13 |
| 14 | 9.294 984 | 2.260 904 | 14 |
| 15 | 9.712 249 | 2.396 558 | 15 |

I question whether such tables are published, and if they would have to be worked out for each different rate of interest required, it would entail an enormous amount of labor. Such problems, however, are very easily solved by the use of logarithms, the following rule being applicable:





RULE.

To find the number of equal installments, payable at the close of stated regular intervals, required to liquidate a certain principal, interest at the close of each interval to be calculated at a given rate upon the balance of principal due at the beginning of that interval, and the difference between such interest and the amount of the regular installment to be applied to reducing the principal; interest for the following interval to be calculated upon such reduced principal.

(a) Calculate the interest at the given rate for the period of one interval upon the original amount of the principal.

(b) Subtract such interest from the amount of one of the equal instalments.

(c) Consult a table of logarithms and ascertain the logarithm of the difference resulting from (b) and subtract same from the logarithm of one instalment, and divide the result by the logarithm of the amount of $1 at the given rate of interest for the period of one interval.

The result will be the number of instalments required.

For example—taking the illustration cited above:

(a) The interest upon $4,050 for one month at six per cent. per annum is $20.25.
(b) $45.00 less $20.25 equals $24.75.
(c) Logarithm of $45.00 is .....1.653 213
Logarithm of $24.75 is .....1.393 575

.259 638

Logarithm of 1.005 (amount of $1 with interest at six per cent. per annum for one month) is .002 166. .259 638 divided by .002 166 is 119.87. It will therefore take 119.87 monthly instalments of $45 each to liquidate the debt of $4,050 upon terms stated.—*A. J. Conen.*

(848) FLAT BUILDINGS.

The accompanying forms are devised for owners of one or more flat buildings or apartment houses, for the purpose of keeping accurate and necessary information regarding their holdings.

In the individual flat records, kept on cards (one for each tenant), an owner can keep accurately posted as to the desirability of the tenant, the repairs to each flat being a good index to the tenant's carelessness or carefulness, as the case may be.

Three classes of income-producing property are treated here:

First—The building of six flats of from three to five rooms each.

Second—The apartment house of from ten to thirty, three or four-room flats, where hall lights, janitor service (for exteriors) and garbage removal service is furnished; and,

Third—The apartment house of the same number of flats built in a more

Form 1

**Individual Flat Record**

Flat ..... a ..... Rent $30.00
Tenant ..... Mrs. J. Brown
Commenced ..... 9/1/08
Cost of Repairs to Date } (12) (25) 13.25

Pay promptly
Husband - Salesman in Grotewell - Hibbard Hardware Co - 2 Grown children

pretentious manner, where tenants are furnished all the necessary adjuncts to housekeeping, such as light, heat, hot and cold water, garbage and janitor service and elevator service.

For all these properties there are similar fixed charges, viz., taxes, insurance and water.

The monthly charges against the property vary according to the character of the structure. The rent collecting is usually attended to by a real estate firm, as is also the matter of repairs, but it is customary for the agents to confer with the owner before expending any considerable amount for repairs. From the agent's monthly remittance sheet the owner can get all the necessary infor-

Form 2

**Repairs Record** — Flats 460 Broadway Street

| 1908-9 | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct | Nov. | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Painting | | | | | | | | | | | | |
| Inside Outside | | | | | | | | | | | | |
| Plumbing | | | | | | | | | | | | |
| Carpentering | | | | | | | | | | | | |
| Fixtures | | | | | | | | | | | | |
| Sundry | | | | | | | | | | | | |
| Total | | | | | | | | | | | | |
| Total for Year | | | | | | | | | | | | |

Built
When last Painted
By whom Painted





Form 3

**1908-9 Owners Rent Record**

| Flat | 9/1 - 10/1 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 9/1 - 10/1 | | | | | | | | | | | |
| B | 9/15 - 10/15 | | | | | | | | | | | |
| C | 9/1 - 10/1 | | | | | | | | | | | |
| D | 9/1 - 10/1 | | | | | | | | | | | |
| E | 9/15 - 10/15 | | | | | | | | | | | |
| F | 9/18 - 10/18 | | | | | | | | | | | |

Form 4

**Remittance Sheet Real Estate Agents**
San Francisco ..... 1908
M ..... In Account with Chas Jones Co. 120 Front St.

| 406 Broadway | | | | |
|---|---|---|---|---|
| A | Smith | 1 Sept | 30 | — |
| B | McKenny | 1 " | 30 | — |
| C | Miesner | 1 " | 30 | — |
| D | Adams | 2 " | 30 | — |
| E | Greenleaf | 3 " | 30 | — |
| F | Rosenstirn | 1 " | 30 | — |
| | | Dr | 180 | — |
| | | Commissions | 3 | — |
| | | | $177 | — |

Form 5

**Summary for First Year Ending: 9/1/09**

Class of Building 6-5 Room Flats
Location 460 Broadway
Cost of Lot $4500
Cost of Building $12500 Total $17,000.
Taxes from 3/1/08 to 3/1/09 $200.00 — Income $2000.-
Insurance from 3/1/08 to 9/1/11 $250.00 — Less Charges $ 367.-
Total of Monthly Expenses $108.00 — Net Income $1633.-
Repairs 9/1/08 to 9/1/09 $ 75.00 — % on Valuation 096
$633.00
Less Credit on Taxes 100
" " Insurance 166
$266.00
$367.00
Gross Income to 9/1/09 ..... $2000.-
Income if Flats have all been Rented ..... $2160.-
Loss of Income from Vacancies ..... -$160.-

RECAPITULATION CARD FOR MONTHLY INCOME & EXPENDITURES ON ALL PROPERTY

| | #1 FLATS | | #2 APARTMENTS | | #3 APARTMENTS | | |
|---|---|---|---|---|---|---|---|
| | IN | OUT | IN | OUT | IN | OUT | |
| JAN. | | | | | | | |
| FEB. | | | | | | | TOTAL ALL ____ $xxxx.- |
| MAR. | | | | | | | PAID OUT ALL ____ xxx.- |
| APR. | | | | | | | GROSS ____ $xxxx.- |
| MAY | | | | | | | TAXES ALL ____ xxx.- |
| JUNE | | | | | | | ____ xxxx.- |
| JULY | | | | | | | INSURANCE ALL xxx.- |
| AUG. | | | | | | | NET $xxxx.- |
| SEPT. | | | | | | | |
| OCT. | | | | | | | |
| NOV. | | | | | | | |
| DEC. | | | | | | | |
| TOTAL | | | | | | | |

mation as to names of tenants, when paying, and amounts of repairs, to transfer to his cards or books.

The accounts of taxes and insurance should both be credited with the amount of unexpired terms, as insurance policies are very often written for three years. This gives the actual amount of taxes or insurance for any specified time.

The repairing account is kept in detailed form on the cards in addition to the ledger account. The repairs being one of the undeterminable features of a building where the owner must keep the place in order, an accurate and comparative account is of great value and guidance for determining the class of buildings paying the best rate of interest.

Here follows a description of the cards and ledger accounts and the cash book system:

STYLE I.

Class of Building—Flats. Six.—5 rooms each.

Fixed Charges ..... { Taxes. / Insurance.
Monthly Charges ..... { Rent Collecting. / Water. / Hall Light. / Janitor (Hall).
Indefinite ..... Repairs or Renewals.

STYLE II.

Class of Buildings—Apartment Flats. 27.—3 rooms each.

Fixed Charges ..... { Taxes. / Insurance.





Monthly Charges ..... { Rent Collecting. / Hall Lights. / Janitor Service. / Water. / Superintendent. / Garbage Removal.
Indefinite ..... Repairs or Renewals.

STYLE III.

Same class as Style II, with addition of elevator service and heating in monthly charges.

LEDGER ACCOUNTS.

Real Estate Account—Cost of lot and improvements.
Real Estate Income Account—Rents collected (credit).
Repairs Account—Repair charges.
Insurance Account.
Taxes Account.

Monthly charges, such as light, water and rent collecting, together with janitor or superintendent services, heating and garbage removal, are made through the cash book to the debit of "Real Estate Income" account.

In the apartment flats the superintendent is usually compensated to the amount of free rental in place of salary, depending of course on the size of the apartments.

The cash book being used but monthly, all information as to collections and repairs coming from the agent's collection sheet, needs to be of the simplest form.

The individual flat record is made out for each new tenant and is kept in use while that tenant retains possession. It contains such information as is useful for giving an index as to the tenant's desirability, or the cost of repairing individual flats.

The repairs record is a monthly record of the cost of the various classes of repair work. These cards can be made out for two or three years on a card also.

The owner's rent record is made up from the agent's remittance sheet, and gives him a record of how his rent is coming in or how many vacancies exist.

The agents' remittance sheet is a detailed monthly statement from the agents, giving the names of the tenants, the amount paid and from what date the repairs, if any, deducting their commission of fifty cents per flat for rent collecting. This net amount is covered by their check.

The recapitulation card for monthly income and expenditure for all property is designed to show at a glance the income and expenditure accounts of all the property for which accounts are being kept. The information is taken from the agents' remittance sheets and cash book entries, and when placed on the card shows the necessary details of the earnings of the property in the most condensed form.

On the summary card for the yearly record at the end of each year of the property's existence is worked out the general and specific results of the

year's income and expenditures, so that the owner can tell accurately what his net income is. After the first year an annual amount, determined both by usage and the character of the buildings (whether of brick or wood), should be charged off for depreciation, although very few owners of property think of doing so.—(*L. Joseph.*)

(849) RESIDENCE PROPERTY RECORD.

**FOR RENT** — **RESIDENCE PROPERTY** — **4600 8**

LOCATION

No. ____ St. ____ Ave.
Side of Street ____
Near Street ____
Car line ____
School ____

LAND DESCRIPTION

Lot No. ____ Sub-Lot ____
Ft. Front ____ Ft. Deep ____
Side Walks ____ Walks ____
Paving ____ Curbing ____
Driveway ____ Alley ____

BUILDING DESCRIPTION

Stone ____ Brick ____ Frame ____
Age ____
Cellar ____ Foundation ____
Remarks ____

DESCRIPTION & IMPROVEMENTS

Rooms ____
Bed Rooms ____ Bath Rooms ____
Rms. Finished in Attic ____
Lavatories ____
Wall Decorations ____
Wood Finish ____ Down ____
" " ____ Up ____
Floors ____ Down ____
" ____ Up ____
Gas ____ Electricity ____
Heated by ____ L'dry Tubs ____
Ins. H. W. Heater ____
Screens ____ Awnings ____
Stable ____
Present Condition ____
Children ____
Vacant ____
Water Rent ____ Pd. by ____

VALUE, TERMS, CONDITIONS

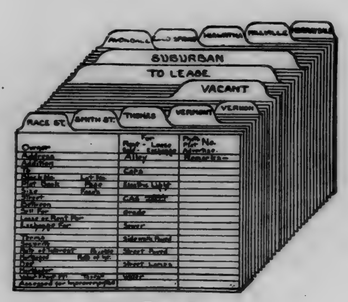
Rental ____ mo. ____ yr. ____
Lease for ____ Yrs.

MISCELLANEOUS INFORMATION

GENERAL INFORMATION

Owner ____
Address ____ Com. ____
Telephone ____ Bell ____ Cuy ____ Exclusive ____
Registered by ____ Sign ____ Placed ____ Removed ____
Date ____ Keys ____
Expiration cont. ____ Obtained by ____

FORM 4.




FORM 5.



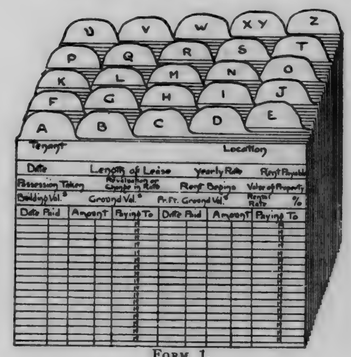


INTERESTING ILLUSTRATIONS.

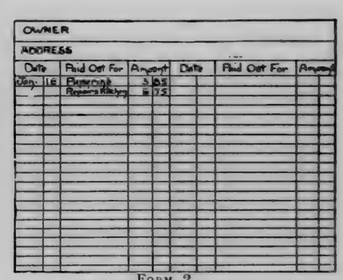
Forms 1 and 2 illustrate the front and back of a card devised for the keeping of accounts with tenants. It will be noted that the rental account is carried on the front and the disbursement account on the back.

Form 3—Real Estate Office Record of properties for sale, or to rent, etc. The tab in the middle of the card is intended to represent approximate value.

Forms 4 and 5 are also devised for the real estate office business.




FORM 1.

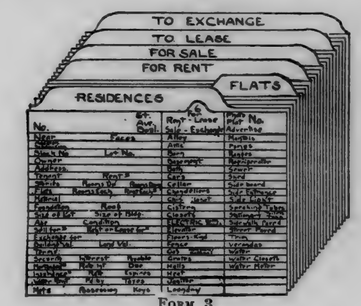



FORM 2.

(849A) REAL ESTATE BUSINESS—ORGANIZATION AND WORKING SYSTEM.

RENTAL DEPARTMENT.

In considering the establishment of a large real estate concern there is no doubt that the Rental Department should come in for a fair amount of discussion. It is true, indeed, that it is often considered, by the one who does not know, as a mere accessory—a convenience, or perhaps a necessary evil—but results in solid cash on the right side of the ledger, when well conducted, no doubt will give the department a high value in the adjusting of credits.




FORM 3.

One of the largest sources of income for the realty dealer lies with the rent man, for it is this department which makes possible the successful handling of rent estates, of controlling apartment and business places, and maintaining a collection department. In fact, that man is short-sighted indeed who tries to curb the growth of the rent business, because it threatens to overshadow one of the other departments, or because his specialty having been devoted to salesmanship he could not realize the necessities of a rapidly-growing rental department.

One of the main values, beyond that above stated, of placing tenants in desirable houses at a reasonable commission, or in placing tenants in houses belonging to estates handled by the firm, is that of a drawing card to the institution. A well-conducted Rental Department is one of the very best advertisements that a real estate firm can well have, and this value is entirely disproportionate with the amount of its probable returns. The department could be run at an absolute loss, financially, yet if conducted on the right plan, would be a paying part of the institution. It acts as a valuable feed to the sales department—a fact some real estate men, and even rent managers, are apt to forget. Every renter is a potential buyer of a home. The material is at hand. A judicious suggestion or terse argument, or even a bit of printed matter given to the tenant will get him into the mood for buying. The rest is easy. If the department has been successful, and the man of the right kind, and also, which sometimes is not the case, if the salesmen of the institution have put

**City and Suburban Homes Co. Ltd.**
**DETROIT, MICH.**
**RENTAL DEPARTMENT.**

Date.....190..

Rent Price.....
Building..... F..... B..... S.....
No.....St.....
Between .....
Paved with..... Walk.....
No. of Stories..... Rooms.....
Sleeping..... Bath.....
Light..... Heat..... Barn.....
Cellar..... Laundry.....
Lot..... Water Tax paid by.....
Lease..... Possession.....
Key.....
Listed by.....

I hereby agree to pay the above Company the usual commissions, if this property is rented through their efforts, or information obtained from them leads to the rental thereof.

Owner (Signed).....
Address.....
Phone .....
Rented to..... Date.....
Term of lease..... By.....

Form No. I—Rental Form.

**RENTAL DEPARTMENT.**
**City and Suburban Homes Company, Ltd.**
**DETROIT, MICH.**

*Below find description of my property, which you are hereby authorized to list on your books for rent.*

No .....St.....
What Side of Street .....
Between what Streets .....
Street Paved with.....
House.....Flat.....Terrace.....Store.....
Kind—Brick.....Stone.....Frame.....
No. of Stories..... Rooms.....
Bedrooms..... Bath.....
Light..... Heat..... Barn.....
Cellar..... Laundry.....
Water Tax Paid by.....
Price..... When Paid.....
Possession.....
Will Lease..... Term.....
Key at .....
Owner (Signed).....
Address.....

Form No. II—Mail Order Rental Form.





aside their jealousies and have the sense to co-operate with the rent man, then a sale is easily made, for the name is registered, the prospect returns to the office for further particulars—and becomes a property owner.

The Rental Department is divided into several branches, each one separate, yet all essential to the good working thereof. These divisions may be given as the "General Rental Section," which consists of securing vacant houses from landlords, and renting them on a commission basis to the tenants, and "The Estate," or "Listed Property Section," where a tenant is placed in houses

Price..... No..... Side..... Street.....
Between..... Paved.....
House..... Flat..... Terrace..... Store.....
Kind-Brick..... Stone..... Frame.....
No. of Stories..... No of Rooms..... Bed Rooms.....
Bath..... Light..... Heat..... Cellar.....
Laundry..... Barn..... Size of Lawn.....
Lease..... Term..... Possession.....
Key at..... Our Collections.....
Placed with other Agency.....
Will Sell..... Amount.....
Owner..... Address.....

Form No. III—Form For Rental Card Index.

**City and Suburban Homes Company, Ltd.**
**35-37 State Street, DETROIT, MICH.**
**PHONE MAIN 5206.**
**RENTAL DEPARTMENT.**

Dear Sir / Madam:

Having received information that you desire to rent a ....., we would be pleased to have you call at our offices in regard thereto. Upon consulting our files we find that we have several places which will interest you and meet your requirements. We make a specialty of **renting** places, secure the best terms, and have the best places listed here. Since the most desirable places are always taken up very quickly, it will be advisable to register your name, and secure our list as soon as possible.

Awaiting an early response, and assuring you of prompt attention, we beg to remain,

Very truly yours,
CITY AND SUBURBAN HOMES CO., LTD.
Per.....

**Offices on Ground Floor.**

Form No. IV—Postal Card to Rental Prospect.

or apartments which are handled by the firm exclusively, even to the repairs and collection of the rents. This last section involves the re-subdivision of the work into (a) the collection department, where an employe collects all rents when due, and (b) the repair department, which is in the hands of a person well versed in the needs of rented places, the amount of repairs necessary, and—which is very important—how such repairs may be made at the utmost minimum of cost. The collections sometimes are made by the legal department of the concern, while it is often that the repairs may be delegated to the building department, but both repairs and collections remain under the general oversight of the rental manager, who is responsible for results.

The General Rental Department is handled by the rental manager, who is considered the "inside man," while he has one "outside man" with several assistants if the amount of business will warrant it. The "inside man" should have an assistant who will copy the lists when desired, and attend to the inside work when the manager is called upon to conduct good prospects through some especially desirable building. Too much stress cannot be laid upon the value of accompanying the highest type of prospective renter to a fine house, for very often the most desirable points are overlooked unless the rent man is there to point them out, and argue down defects, and the general manager is short-sighted indeed if he expects or insists upon his rent man being always behind his desk. Also, it is to be noted that the rental manager should know the good points of all his listings by heart, should know the streets, the neighborhood, and the house. He should see the house if possible, making a tour of inspection at least once per week, to become familiar with new listings, and also know the value of such places. If the rent price is more than it should be he should know it so as to get it down. If less, he should be able to get more than that asked, and thereby win the everlasting gratitude of the owner. The rent man should never forget that he is the agent of the landlord, and if any concession is to be made the landlord should be considered, for when the department has once convinced the owner that it can do the work better than the landlord can himself, such rental property will always again be placed in the firm's hand whenever vacant, thereby saving a considerable item in expense—that of securing places, besides eliminating the element of worry concurrent with the manager's inability to secure enough places for rent.

In general, it is not so hard to secure the tenant as it is to secure the house for that tenant. The renter has long ago discovered that it did not pay to "house hunt" on his own account when the large real estate companies would do this very thing for him without charge, and be glad of the opportunity. But some property owners have yet to learn that 50 people consult the Rental Department for a place where one would come to the owner in response to an advertisement in the want column.

The commission charged the property owner for placing a tenant for one year is three per cent. of the annual rent, which rate is controlled by the Real Estate Board. When the period of lease is more than one year a three per cent. commission is charged on the full period up to three years, and one





LIST FROM THE

**Rental Department**

**City & Suburban Homes Co., Ltd.**

**35-37 State Street, Detroit, Mich.**

Please notify us if you take one of these houses. Pay the first month's rent at our office.

Date Jan. 5th - 04

Name John Doe.

Address 1991 Woodward.

| NO. | NAME OF STREET | PRICE |
|---|---|---|
| | | |

I received my first information on above houses from this firm

John Doe

**All Houses Rented subject to owner's approval.**

Form No. V—List to Prospective Rentors.

per cent. for each year afterwards. This applies to residence places. Store property or factories command a commission of five percent on the same basis. However, as only a small per cent. of the real estate dealers belong to the Board of Commerce or subscribe to the Realty Board, the price is often cut, under one pretext or other, to one-quarter of the first month's rent.

The prices charged for handling collections of rent and repairs is usually five per cent. of the gross receipts and two per cent. of expenditures for repairs, being also controlled by board rates.

Upon the outside man devolves the duty of keeping the lists full of rentable houses—an arduous task at times. He must be a man of ability, one who can meet the bigoted or prejudiced landlords or ladies with argument and convince them that the firm can handle and rent the place more quickly than they can. In fact, he must show that the saving effect will more than pay the commission charged. He is assisted by other men who patrol certain assigned sections of the city and keep alert tab on all vacancies which occur in his territory. To the effective patrolling of streets and following up of the newspaper ads. does the department owe much of its success. The outside man trains his assistants and gives them their directions each day, such as he has received from the rent manager. They report each morning on the work of the previous day, and turn in the listing cards filled. They also take out signs for the houses not supplied, for that is an item no rental man should neglect.

E. M. GRINDLEY, CHAIRMAN AND GEN'L MAN. R. G. LAMBRECHT, SEC'Y AND TREAS.

**City and Suburban Homes Company**
LIMITED

**General Dealers in Real Estate**
**Insurance**

OFFICES, 85 AND 87 STATE STREET

*Detroit, Mich.,* _____ *190*__

*Received of* _____

_____ _____ *Dollars*

_____

_____

_____

**City and Suburban Homes Company,**
LIMITED

_____ *Per* _____

Form No. VI—Rental Receipt.

| Date | Name | House | Owner | Rents For | Term of Lease | Amt. Paid | Commissions | Credit to Whom |
|---|---|---|---|---|---|---|---|---|
| *Jan. 7, '04* | *John Doe* | *214 Horton* | *H. Ziegen* | *$30.00 Mo.* | *1 Year* | *$30.00* | *3% Ann'ly* | *Zeigen 40%, Menefee 20%, Firm 40%* |

Form No. VII—Day Book and Commission Entry.

The places for rent are secured by the above method primarily, but the newspaper ads. in the want column are very important if followed up, and the rent manager usually looks over each day's paper and checks off in blue pencil the addresses of new places for rent. Return postal cards are also sent to the landlords at intervals, and when the name is not given or impossible to obtain a personal interview is demanded.

When a place is noticed for rent, the solicitor goes to the owner and gets permission to list same, and makes out a card (Form 1), which he insists upon having the owner sign, otherwise no evidence for listing is furnished the department.

If the landlord is approached first by the return postal method the card (Form 2) is sent him, and he is expected to fill out the attached card and return it. If not, a follow-up system is employed, and a man is sent out to personally interview him and get his listing.

As above stated these cards are turned in each morning to the rental manager, who looks them over, sorts them into grades, and enters them on cards for the filing cases, as in Form 3.

A good outside man (assistant) can bring in from four to ten listed properties per day in fair season—such man usually having a wheel, and is merely learning the business of real estate without the expectation of a high renumeration.





The listing cards are then filed alphabetically for future reference, and if at any time this house becomes vacant a full record is always on hand for use, and it merely needs a phone call to have it placed on the rent list again. The case-cards are separated into grades according to their values and kind of property. In general the flats and apartments are kept separate, and the houses are graded together. Houses from $5 to $15 per month being put in one case, from $15 to $30 in another, and above that in another, arranged according to streets.

It is always essential to get the keys for places listed, and to obtain sole control if possible. The keys are tagged and placed on a rack alphabetically, for that purpose.

Prospects for these places are obtained in various manners, but the proverbial expression is true—that of "keeping everlastingly at it." There is no sleep for the department, for the clientele is easily attracted elsewhere, although a patron when once satisfied will always return. But if this patron actually has been satisfied he wouldn't come back for several years, for it should be the aim of the rent manager to secure as long leases of property as possible, and place good non-movers therein.

Advertising in the right way, with specific advertisements in the daily and Sunday papers count the most. General ads. are valueless, but to select some good bargains as leaders in all classes of property and pound on them, will bring hosts of inquiries. Often in the "House Wanted" column will be seen ads. making inquiries for a certain kind of place. To these a postal is mailed inviting them to the office, which rarely fails of service.

Usually in the morning as soon as the rent man can find time, he goes over the various listed places and makes out a type-list of different prices and locations, which he places before him for reference during the day. This saves him many minutes later on during the rush of inquiry. After ascertaining the desired location, and general price of the house-hunter a list similar to Form 5 is made out, and handed to him, and if possible the signature of receival is obtained. A carbon duplicate of this list is retained and placed on file for future reference. In case such party rents a place on that list without returning to the department so that due credit may be given, the duplicate is taken in evidence of duty performed.

One advantage of keeping this duplicate is that the name and address are kept on file, and a few words may make such person an excellent sales prospect. One firm claims to receive fully one-third of its sales-prospects from this source, and the method is surely to be approved.

If the person receiving the list does not report in a few days a follow-up system is again employed. Either a letter is dispatched to the party, making inquiry whether he has been suited, or if it related to a high-priced house, added lists are sent to the party and he is asked to call again. Never let a prospect "die" without knowing why, and use your best endeavors to "place" him, or someone else will.

When the parties decide upon a house get a payment at once, issuing a duplicate receipt therefor. This is important, as they often change their

mind. Always insert "subject to owner's approval," for your own protection, and be sure that the parties are responsible and reliable. If not, look up their record and references. A poor tenant in a place ruins the reputation of a rental agency more quickly than almostany other cause.

A full month's rent should always be obtained on first payment if possible, as the tenant is less liable to back out then, and all agreements should be definitely understood, all details of repair gone over, etc., so there will be no chance for a misundertsanding or evasion. Have the leases, in duplicate, drawn up as soon as possible, and also have the landlord notified posthaste so he will have no opportunity to unknowingly rent to another, thereby causing confusion.

The amount taken in is then entered in the departmental day book (Form 7), and a credit slip made out which, together with the amount given, is handed to the private secretary of the secretary-treasurer for entering in the commission book.

**City & Suburban Homes Company**
LIMITED

**CASHIER'S TICKET**

**Date** Jan. 7, '04.

**CREDIT** Rented To

| | |
|---|---|
| John Doe..... | 30 00 |
| House at 214 Horton Ave. | |
| Rent price—$30.00 mo. | |
| Lease 1 year. | |
| Owner, H. Zergen, 214 Horton. | |
| Commissions, 3 per cent. of annual rent. | |
| Amount $10.80. | |
| Rented by Z., 40 per cent. | |
| Territory M., 20 per cent. | |
| CLOSE AT ONCE. | |

(Form 8.) Report slip of rental.





We see that this entry is similar to that of the sales, and is entered here merely to verify checks and vouchers given for commissions, for be it known that most realty transactions are conducted on a commission basis.

After entry here, it is taken back to the regular book-keeping department where the procedure does not materially differ from that used in any large concern.

As soon thereafter as possible a check is sent the landlord, covering the first month's rent less the commission which had been agreed upon. An accounting is made once per month, and collections credited to the first.

### Remuneration.

The system of paying the various people employed varies in the different offices. Some firms make their rental manager a partner in the concern, and after deducting all expenses, such as advertising, help, etc., and allowing a reasonable salary to the rent man, cause an equitable division of profits to be made. Other firms pay a straight salary to all employed in the department, the salary depending upon position and amount of business annually shown by the department. Such salary usually averages from $15 to $25 per week for the manager, and $12 to $15 per week for the outside man. Another method, however, consists of a system of commissions which seem to work fairly satisfactorily although not entirely so, because they have not gone far enough. This latter system allows the rent manager a guarantee of from $60 to $80 per month, which is based upon 40 per cent. of the gross commissions of the department. A step further is sometimes gone and the rental manager is allowed 25 per cent. of the commissions received on all sales prospects turned over from the Rental Department. This last commission is to be approved as it tends to cause the Rental and Sales Departments to co-operate, one being the legitimate feeder for the other. On the commission plan the outside man receives 30 per cent. of all houses rented from which a commission is obtained, except such houses as are turned in by his assistants when the head outside man receives 10 per cent. of the commissions, and the assistants each receive 20 per cent. of whatever places are rented of which they have secured the listing. The head outside man usually receives a guarantee of from $10 to $12 per week, based upon these commissions.

The salary basis has been discovered to be much more satisfactory in the Rental Department, as usually there are so many apartments, flats, stores and houses belonging to the firm, upon which, of course, no commission can be charged, that it makes it easier to adjust the work on a salary basis. Besides the prospective renter would be handled much more readily by the salesman as a good prospective buyer, knowing that he would not have to divide his commissions with the rent man.

The collector receives a straight salary, and it is often that he is also appointed the general overseer and repairman of houses. Whenever he makes a collection, all his collection cards having been arranged according to the dates when the rent is due, it is reported to the department and entered

in regular debit and credit manner by the book-keeper. It is also entered in the filing cabinet of the department as in Form 9.

214 Horton ..... Owner ..... Rent .....
Tenant ..... Lease ..... Rented .....
Commission for Collector ..... Our repairs .....

| Date Due | Amt. | Date Paid | Amt. | Date Due | Amt. | Date Paid | Amt. |
|---|---|---|---|---|---|---|---|
| January 7 | $30.00 | January 7 | $30.00 | | | | |
| February 7 | 30.00 | February 9 | 30.00 | | | | |
| March 7 | 30.00 | March 7 | 30.00 | | | | |
| April 7 | 30.00 | | | | | | |

Form No. 9—Agents' Account.

If a tenant does not pay promptly he is warned and after seven days, if no good cause is shown why the time should be extended a seven day removal notice is given. If no payment is made after that, and the tenant does not move, an order from the Circuit Court Commissioner is obtained and the tenant evicted. A corporation can attend to this matter exceptionally well, as it is proverbial that it has no heart, therefore it produces results of a high per cent. net profit at the end of the year.

Repairs and necessary alterations are always reported in to the rental manager, who refers same to the repair man for detailed report and estimate. He then gives him a written order to proceed with same, to hire the necessary workmen, and buy material, and then O. K.'s all bills for labor and material involved. A voucher is issued in his favor by the secretary who charges same to the owner of the property repaired, and has all costs and expenditures deducted from the commissions before forwarding same each month to the landlord.

A regular monthly report is issued to the Rental Department, similar to the monthly sales report, and often a comparison is drawn, or improvement suggested.

### ARCHITECTURAL AND BUILDING DEPARTMENT.

The Building Department is becoming a more and more important feature in large realty concerns as the years pass by. This department is a great saving to the firm, a valuable source of income, and a last resort in case of sale. It is also a defense against encroachment.

Builders and contractors are entering the realty field to a greater extent each year. Notice in any city and you will find that carpenters enter into agreement to put up a house for a share of the profits, when lots are furnished. Next they buy the lots and put up the houses to sell to realty customers. Soon they handle subdivision property, erecting a series of homes thereon for sale.





From this it is but a step to opening a regular realty commission department in connection with the other work.

Realty men retaliate by putting in a Building Department, to their great advantage. The method of conducting such department is comparatively simple after once organized as it is nothing more than the repetition of common contract forms and work. But the starting of such a department may require considerable engineering and knowledge.

As a fundamental proposition it is necessary to know "why" you start the department. To realize that it is a "good thing" and might pay well, is not all that is necessary. You must recognize the relation of the Building Department to the other departments, and the necessities of such inter-relation and dependence before you take a step. The Building Department is related to the Listed Property Department inasmuch as it may be a last resort. Many people are desirous of purchasing a house, and will pay for it on time or cash, but after looking at dozens of places, all more or less desirable, they become discouraged. Nothing just suits. They turn away. None of the places shown them have exactly met with their ideas of a home. Unless something is found at once they are lost, for probably another firm will be able to satisfy them. Then is the time to present a few styles of newly built houses, or a book of architecture. Get their ideas, and then show them the plans of just such a place. Quote them a price, and sell them a lot to build on.

The subdivision department becomes many times more active when the firm can say to the prospective customer: "Here, my friend, on such and such a lot we can build you a house for so much. You can pay 10 per cent. down, and when 20 or 25 per cent. of the full value of the house and lot is paid in we will build you a house according to plans of your own selection, you can move into it when finished, and pay us the balance the same as rent."

That argument is effective. It is convincing. They can get everything right there, get the house of their choice at their own price and on terms to suit.

One of the essentials in running a successful Architectural and Building Department is the ready use of large funds. If the capital is limited to small amounts it is worse than useless to try to add this department. One false step will plunge the concern into bankruptcy, since it means the tying up of thousands of dollars in building operations. It is also to be noted that few houses are built for ready customers, or are sold for cash. Often it is necessary to wait six months for a buyer, and then it is bought on a payment of from $100 to $300 down, with the balance the same as rent, taking ten years to pay for it. This method is to be preferred if the firm has the backing, for if payments default it is all gain, and if not, an income of six per cent. is assured. Banks, according to state law, are allowed to advance only one-half of the taxed value of a property if a loan thereon is to be desired. But this is to be noted. Banks often will take one of their lots, put up a cottage for sale, and will accept $100 or less down, in order to keep their funds in circulation, or in order to get rid of an otherwise slow moving piece of realty. Therefore

if the firm contemplating the establishment of this department has not a sufficient financial backing, it should endeavor to enter into contract with such a bank, or a loan association.

They can then build on these lots held by the bank, get the material and labor necessary upon the order of the cashier, and after completing the cottages add such an amount to the cost thereof as will handsomely reimburse them for the time spent. The profits may then be divided between the two institutions, and after the house is sold on contract, at six per cent. per annum, the contract is turned over to the bank, the firm merely receiving its share of the first or subsequent payments.

One of the most desirable methods of securing funds, of course, is that pursued by several institutions in the city, viz., to incorporate for several hundred thousand dollars and use the money secured by sale of stock, in its building operations. Every dollar thus received necessarily enriches the company, making it doubly valuable as a money getter. Furthermore, the money used in this manner brings better returns than in other ways, as it earns several different commissions in the one operation. To the uninitiated it might be mentioned right here that the commissions referred to are the architect's two per cent., the contractor's three per cent., the lender's two per cent., the subdivision man's 20 per cent. of cost of lot, and the salesman's three per cent. of sale price, beside the necessary "profit" added to the building after completion which last is measured by the probable rapidity of sale, location, and good looks of the place. It averages from 10 to 20 per cent. of the net cost of the place—and sometimes more. This profit also depends to some extent upon the terms which are made to the purchaser, and his likelihood of carrying out the contract, as better terms are made to the party with the cash.

The Architectural and Building Department may build upon lots owned by the firm, with money belonging to the firm. In this case the firm makes all the various commissions and profits.

Again, the department may build upon one of its own lots, and obtain sufficient funds from the bank to carry on the operations. The bank rarely advances more than 50 per cent. of the taxed valuation of the improved property. Sometimes the department may build upon the lots belonging to the bank or other large corporation, advancing its own funds to build, but not paying for the lot until the place is sold.

Also the department is often called upon to build upon other people's property, such person or corporation furnishing all funds, the firm merely taking charge of the work, and when the place is sold the profits are divided.

Other combinations may be entered into, more or less advantageous to the firm, but it is to be impressed that the more building it can do in any one season the greater the profits on each building, as the supplies and contract work, being uniform, are much lower when bought in quantities.

The selection of a good architect and contractor is an important feature, as the work and reputation of the firm is quickly marred by an indifferent person in this position. He must be a man who can grasp large possibilities. He must think in big numbers, for if the firm is doing an extensive business





at all, the head of this department is superintending the construction of dozens of places at the same time. His assistant, draughtsman, local foreman, and laborers are engaged in the same manner as those in the architect's office elsewhere, or those at work on the houses, the only thing to notice being that the manager of the department has charge of the draughting and artistic work, as well as the constructive or mechanical work. He must be a builder as well as an architect.

The buying for the department is an important item. Much of the profit depends upon this, and a knowledge of the prices and lowest market quotations in hardware, lumber, paints, etc., is essential. Lumber being such an enormous item in a year's transaction is often obtained from their own yards, which are established as a branch of the firm in some large cities. The same may be said of other building materials, some realty firms handling these at wholesale, sell to other contractors, thereby saving the jobber's commissions for themselves. Every commission saved in this manner adds just so much to the revenue of the concern, and in a season's operations of from 20 to 40 houses, this will amount to several thousands of dollars clear profit, an item not to be overlooked.

Of course the neighborhood will to a certain extent govern the kind of a house to be built. Usually it can be accepted that the lower priced places will sell the more rapidly. Places to sell from $1,600 to $3,000 rarely wait long for purchasers. It is very important indeed, however, to select desirable locations. One firm recently built $4,000 houses in a $2,000 neighborhood and wondered why the places did not sell. The houses are still for sale. Another firm built $3,200 places in a $7,000 neighborhood and sold everyone of them within a week at prices ranging from $4,500 to $5,500. A mistake of judgment in this matter is pretty expensive business.

Sometimes the firm finds it necessary to sublet the contracts on the various houses to be built. In this case bids are taken on the specifications from various contractors much in the same manner as for any single building and the lowest bidder receives the contract. This method is much more economical at times as the superintendent of construction then can give his entire attention to detail work. Some firms handle their building operations entirely on this basis, never giving any thought to having a force of their own at the work.

When a contract is assigned, be it to one of the firm's regular employes or to an outside contractor, a contract is drawn up and signed agreeing to build according to specifications and directions, such labor and material not to exceed a certain price. These contracts are type-forms such as are used in all building transactions and may be obtained wherever office stationery is for sale, therefore we will omit same here. In fact all of the clerical forms used are those common to all contractors and are obtainable from any of the large office supply houses, no special blanks having been thought necessary.

When a contractor has reached a certain stage in completing the building he may draw on the firm for money to pay his men or to buy material. A

statement is brought to the superintendent who takes it to the manager of the department. He O. K.'s same. It is then presented to the cashier of the firm, who charges this amount against the account of that particular place, be it property of the firm or an outside holding, and a voucher or check is given.

As shown before, when the house is completed according to contract it is inspected by the general manager and after figuring up the total cost, a profit is added thereto which amounts to from 10 to 20 per cent. of cost, and terms of sale are agreed upon. Then the Building Department is given a release, the house is placed in the hands of the Sales Department and advertised.

G. W. GRIMSLEY, President. G. G. SAMBRECHT, Secy and Treas.

**CITY AND SUBURBAN HOMES COMPANY, LTD.**

Successor to "THE CITY REAL ESTATE CO."

THE GRIMSLEY REAL ESTATE EXCHANGE
Established 1900

Address all correspondence to the City and Suburban Homes Co. Ltd. In your reply refer to No.

OWNERS OF AND DEALERS IN REAL ESTATE AND REAL ESTATE SECURITIES
BUILDERS OF MODERN HOMES AND FACTORIES
LOANS AND INSURANCE

Capital Stock, $400,000

offices, Chamber Rooms 36 and 37 State Street
Cable Address 39999

DETROIT, MICH.

HOUSE: No. 125 Chester Ave.

Cost of lot. -- (net) ----- 1000.00
Cost of material (net) ----- 2428.00
(See itemized statement)
Labor - including supervision, .... 1229.30
Sidewalk, grading, etc. ---- 92.50
Permit, record, etc. ------ 18.20
Net total ---- $4766.00
Added Expense Account,
Loan Commission, $2500.00 @ 2% ---- 50.00
Architects' fee and Dept work ----- 238.30
(variable)
Profit. To add after considering
Idleness, Office and store expense,
interest and risk - (variable) -- 1945.00
Sale price of House ----- $7000.00
Terms 15% down, bal. $70.00 per month.

(Form 10.)

When a person who buys a lot, or is the owner of one, desires to have a house built thereon, much of the profit is saved, if he merely pays the two per cent. architect's fee for drawing up plans, and then the contractor's fee of





three per cent. for superintending the construction. The final profits are saved since he is a ready purchaser of his own building.

The profits and commissions in the Architectural and Building Department may be summarized briefly as follows:

Architect's fee for drawing plans, 2 per cent.
Contractor's fee for superintending, 3 per cent.
Fee for obtaining loan (if loaned money), 2 per cent.
Saving effected in buying in quantity, 10 per cent.
Profit added after building completed, 10 to 20 per cent.

To this is added the fee for negotiating a sale of the contract if such sale is desired by the person building, and from this is deducted the five per cent. commission given to the salesman making the sale.

The running expenses of the department, advertising and salaries are also to be deducted in figuring the net profits of the transaction. However, in general it may be considered from 10 to 25 per cent. of the sale price of the building, depending on the boldness of the firm.

Another element enters into the calculation of the large real estate concern. This is the element of lapse. Like life insurance companies, the realty concerns have figured this item down to a definite per cent. Each lapse formerly meant the gain to the firm of all money previously paid, but now the courts have held that a payment on a property secures an equity in such property, which equity must be formally foreclosed according to the mortgage clauses in the statutes. This gives the purchaser a decidedly unfair advantage, making the possible losses much greater to the firm, and therefore necessitating a reasonable first payment.

When the house is sold to a person a land contract is drawn up and signed by both parties. The contract binds the owner to deliver a good and perfect title and deed to purchaser upon payment in full, and the purchaser binds himself to make regular payments as per contract, on pain of forfeiture of all amounts paid. All such contracts are similar in print, being obtained in quantities at the stationer, by all firms alike. Each payment is entered upon the back of the contract.

It is to be mentioned that the especial value of the contract lies in the fact that it has the force of a mortgage, but not being in the form of a mortgage is therefore non-taxable. This evasion of the law was one of the coups of the real estate world some years ago. When the sale is made it is entered upon the books and files in the same manner as illustrated in Part 1 of these articles, the only difference being that it is an open account and therefore payments credited each month.

The repairs and alterations required by the Rental Department are performed under the direction of the Building Department but no special forms are used in the matter.—*F. H. Ziegen.*

(849B) OFFICE BUILDING—MANAGEMENT OF.

Every tenant of an office building in the bygone days recalls without much strain on his memory how he used, when things did not go right in

his part of the building, to wend his way to the cellar, where he could find the representative of the landlord in the person of the janitor, and then and there enter his complaint and return to the upper floors somewhat relieved in mind because he had "had his say," and felt sure that the man who received his rent would get it straight from the "hired man."

Some of those same tenants are still renting offices, and in the course of natural progression they have found quarters in some one of the modern skyscrapers which have relegated the old-time office buildings to the tenement house division, and they, at least, will welcome the difference.

It is no longer necessary for the tenant to sweep out his own office, or wipe off the windows when he wants to look out into the street upon which his office fronts.

Times have changed. Office buildings worthy of the name have been erected and are being managed like any other great business. In fact, some of these modern structures are so massive as to house, during the business hours, almost as many souls as some cities—and more than some towns.

The writer has in mind, particularly, the magnificent monument of enterprise belonging to the Ellicott Square Company of Buffalo, N. Y., in which a man—provided sleeping accommodations were added—could spend his entire lifetime so far as obtaining the necessities are concerned, even to the requisite amount of exercise in the spacious rotunda and halls. Yes, and he may sit in his office and have his luncheon served from the well-appointed café on the ground floor, and may also, if he so wills, obtain any article of gentlemen's wear, or his cigars and newspapers and periodicals from any quarter of the globe, from some one of the various stores with entrances and tempting show windows opening into the same rotunda.

As near as it is possible for such a place to be, the Ellicott Square building is a municipality in itself, and its management is not unlike that of any well governed town. In order to do this there is a suite of offices at the disposal of the management on the sixth floor of the building where a large force of clerks is engaged in carrying out the system which some wise one has installed for conducting the business of the company with its tenants.

On a recent visit to Buffalo the writer had occasion to visit one of the tenants and the methods for the management of the building were so manifestly prominent that he decided to make an investigation. More than half way the officials met him, and he was taken in hand by the assistant who afforded every facility for studying the methods, and for illustrating them in this article as well.

In the first place every soul on the pay roll of this city within four walls has his or her work cut out for them, and like the crew of an ocean steamer every soul has a given place to be at a given time—and he or she can always be found there. If Superintendent Hill has occasion to interview Jones, one of the coal passers in the engine room, he knows at a glance whether Jones is at work at that minute or enjoying his "swing time," and as it is with Jones, so it is with every one of the army under him. So it don't much matter who





ELLICOTT SQUARE

Cleaning Woman's Report for 24 Hours Ending 7 A M _____ 190____

| Room No. | Woodwork Cleaned (when Windows Need Cleaning) | Woodwork in Office Cleaned | Rooms Cleaned Cpt 16 W.O. No. | Rooms Cleaned Cpt 16 W.O. Hrs. | Floors in Office Scrubbed | No. of Floors | Halls Soaked | Room No. | Woodwork Cleaned (when Windows Need Cleaning) | Woodwork in Office Cleaned | Rooms Cleaned Cpt 16 W.O. No. | Rooms Cleaned Cpt 16 W.O. Hrs. | Floors in Office Scrubbed | No. of Floors | Halls Soaked |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

REMARKS _____

_____ Forelady

FORM 1.

ELLICOTT SQUARE

Ushers Report for 24 Hours Ending 7 A M _____ 190____

| | ELEVATORS | | | LIGHTS MAIN ST SIDE | | | | LIGHTS WASHINGTON ST SIDE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | FIRST FLOOR | | SECOND FLOOR | | FIRST FLOOR | | SECOND FLOOR | |
| NO | START | STOP | HOURS RUN | ON | OFF | | | ON | OFF | ON | OFF |
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | REMARKS Under This head report Cars dropped, Cars out of order and exposures | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 12 | | | | | | | | | | | |
| 13 | | | | | | | | | | | |
| 14 | | | | | | | | | | | |
| 15 | | | | | | | | | | | |
| 16 | | | | | | | | | | | |
| | | | | | | | | | | | |

USHER

FORM 2.

**ELLICOTT SQUARE**

Watchman's Report for 24 hours ending 7 A.M. _____ 190__

| ROOM NO. | DOOR FOUND OPEN | LIGHTS FOUND BURNING | LIGHTS IN COURT | | OUTSIDE LIGHTS | | CORRIDOR LIGHTS | |
|---|---|---|---|---|---|---|---|---|
| | | | ON | OFF | ON | OFF | ON | OFF |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS: _____

_____ Watchman

FORM 3.

**ELLICOTT SQUARE COMPANY OF BUFFALO**

**REFRIGERATING REPORT**

For 24 Hours Ending 8 A.M. _____ 190__

| | No. 1 Machine | | | No. 2 Machine | | | No. 3 Machine | | | Cond. Pressure | Back Pressure | Temp. Brine | Pounds Ice Drawn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Started | Stopped | Revol. per min. | Started | Stopped | Revol. per min. | Started | Stopped | Revol. per min. | | | | |
| 8 A.M. | | | | | | | | | | | | | |
| 8.30 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |
| 9.30 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 10.30 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |
| 11.30 | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | |
| 12.30 | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | |
| 1.30 | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | |
| 2.30 | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | |
| 3.30 | | | | | | | | | | | | | |
| Hours Run | | | | | | | | | | | | | |
| Amounts | | | | | | | | | | | | | |

Signed _____ Asst Engineer

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 P.M. | | | | | | | | | | | | | |
| 4.30 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 5.30 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |
| 6.30 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 7.30 | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | |
| 8.30 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |
| 9.30 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 10.30 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |
| 11.30 | | | | | | | | | | | | | |
| Hours Run | | | | | | | | | | | | | |
| Amounts | | | | | | | | | | | | | |

Signed _____ Asst Engineer

FORM 4.





**ELLICOTT SQUARE COMPANY OF BUFFALO**

**BOILER ROOM REPORT**

For 24 Hours. Ending 8 A.M. _____ 190__

| | BOILERS | | | | Temp. Feed | Pounds Coal Weighed in | PAUL EJECTORS | | | | Steam on House |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. 1 | No. 2 | No. 3 | No. 4 | | | No. 1 | No. 2 | No. 3 | No. 4 | |
| 8 A.M. | | | | | | | | | | | |
| 8.30 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 9.30 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 10.30 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 11.30 | | | | | | | | | | | |
| 12 | | | | | | | | | | | |
| 12.30 | | | | | | | | | | | |
| 1 | | | | | | | | | | | |
| 1.30 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 2.30 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 3.30 | | | | | | | | | | | |
| Totals | | | | | | | | | | | |
| Average | | | | | | | | | | | |

Kind of Coal used. Hard and Soft Mixed Cans Ashes Taken out:

Boiler Compound used. " Soot Taken out of Boiler:

Water Consumed on House: Sewer Steam " Stack

Water Register. To-day " " Total

" " Yesterday: " "

Amount Consumed: "

Total: No. of Ash Cans Taken out:

Time of Live Steam used on Elevator Pits

Signed _____ Asst Engineer

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 P.M. | | | | | | | | | | | |
| 4.30 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 5.30 | | | | | | | | | | | |
| 6 | | | | | | | | | | | |
| 6.30 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 7.30 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 8.30 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 9.30 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 10.30 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 11.30 | | | | | | | | | | | |
| Totals | | | | | | | | | | | |
| Average | | | | | | | | | | | |

Kind of Coal used Hard and Soft Mixed Cans Ashes Taken out.

Boiler Compound used. " Soot Taken out of Boiler

Water Consumed on House Sewer Steam " Stack

Water Register. To-day " " Total

" " Yesterday " "

Amount Consumed " "

Total No. of Ash Cans Taken out

Time of Live Steam used on Elevator Pits.

Signed _____ Asst Engineer

FORM 5.

installed the system so long as it is a good one, and is carried out to the letter every minute of the 24 hours.

Of course such transactions as the leasing of offices and the collection of rents are so commonplace that nothing of interest can be said concerning the methods which do not differ from those of other buildings of the same kind.

The chief interest in the system of such a building is in the methods used to know that the work required of so many employes is actually done, and done at the proper time; and, again, it is always well to be able to tell just how much cheaper in the way of material and supplies one employe is doing a certain work than some other employe is doing that same work in the same period of time, and under the same general conditions.

## ELLICOTT SQUARE COMPANY OF BUFFALO

ENGINE DYNAMO AND MOTOR REPORT

For 24 Hours Ending 8 A.M. _____ 190 ____

| | STEAM PRESSURE | VOLTS | AMPERES | | | | | | MOTORS STARTED AND STOPPED | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dyn No 1 | Dyn No 2 | Dyn No 3 | Dyn No 4 | Dyn No 5 | Total | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 8 A.M. | | | | | | | | | | | | | | | | | | | |
| 8 30 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 9 30 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 10 30 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 11 30 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| 12 30 | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | |
| 1 30 | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | |
| 2 30 | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | |
| 3 30 | | | | | | | | | | | | | | | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | |
| Average | | | | | | | | | | | | | | | | | | | |
| Total Ampere-Hours | | | | | | | | | | | | | | | | | | | |
| Volts on Meters | | | | | | | | | | | | | | | | | | | |
| Amperes on Meters | | | | | | | | | | | | | | | | | | | |

Signed _____ Asst Engineer

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 P.M. | | | | | | | | | | | | | | | | | | | |
| 4 30 | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | |
| 5 30 | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | |
| 6 30 | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| 7 30 | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 8 30 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 9 30 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 10 30 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 11 30 | | | | | | | | | | | | | | | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | |
| Average | | | | | | | | | | | | | | | | | | | |
| Total Ampere-Hours | | | | | | | | | | | | | | | | | | | |
| Volts on Meters | | | | | | | | | | | | | | | | | | | |
| Amperes on Meters | | | | | | | | | | | | | | | | | | | |

Signed _____ Asst Engineer

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 A.M. | | | | | | | | | | | | | | | | | | | |
| 12 30 | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | |
| 1 30 | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | |
| 2 30 | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | |
| 3 30 | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | |
| 4 30 | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | |
| 5 30 | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | |
| 6 30 | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| 7 30 | | | | | | | | | | | | | | | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | |
| Average | | | | | | | | | | | | | | | | | | | |
| Total Ampere-Hours | | | | | | | | | | | | | | | | | | | |
| Volts on Meters | | | | | | | | | | | | | | | | | | | |
| Amperes on Meters | | | | | | | | | | | | | | | | | | | |

Make Remarks and Suggestions on other side

Signed _____ Asst Engineer

FORM 6.





## ELLICOTT SQUARE COMPANY OF BUFFALO

PUMP ROOM REPORT

For 24 Hours, Ending 8 A.M. _____ 190

| | FLY WHEEL | | DUPLEX ELEVATOR | | | HOUSE | FEED | | AIR COMPRESSOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Start + Stop | Register | 1 | 2 | 3 | | 1 | 2 | 1 | 2 | 3 | 4 | Brine | Condenser | Dip | Fountain |
| 8 A.M. | | | | | | | | | | | | | | | | |
| 8.30 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 9.30 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |
| 10.30 | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | |
| 11.30 | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | |
| 12 30 | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | |
| 1.30 | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | |
| 2 30 | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 3.30 | | | | | | | | | | | | | | | | |
| Hours | | | | | | | | | | | | | | | | |

Signed _____ Asst. Engineer

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 P.M. | | | | | | | | | | | | | | | | |
| 4.30 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 5 30 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 6 30 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 7 30 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 8 30 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 9 30 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |
| 10 30 | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | |
| 11.30 | | | | | | | | | | | | | | | | |
| Hours | | | | | | | | | | | | | | | | |

Signed _____ Asst. Engineer

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 A.M. | | | | | | | | | | | | | | | | |
| 12.30 | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | |
| 1 30 | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | |
| 2.30 | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 3 30 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 4 30 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 5 30 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 6 30 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 7 30 | | | | | | | | | | | | | | | | |
| Hours | | | | | | | | | | | | | | | | |

Make Remarks and Suggestions on other side

Signed _____ Asst. Engineer

FORM 7.

All this is what the system to be described and illustrated brings daily to the desk of the superintendent and is in turn by the superintendent reported to the higher officials and by their immediate assistants the cost of maintaining the building is easily obtained.

Supplies needed in the different departments are of course issued on requisition from the head of that department and approved by the superintendent's office.

Not the least important of the daily reports to reach the superintendent each morning is that of the woman in charge of the cleaning women for the preceding 24 hours, as each cleaner is required to make out a report (Form

ELLICOTT SQUARE,

Report of Superintendent for 24 Hours Ending 7 A.M. _____ 190

| DAY STAFF | NIGHT STAFF |
|---|---|
| Asst. Superintendent | Watchman |
| Cleaning Women | Elevator Operators |
| Ladies' Toilet Attendant | Forewomen |
| Ushers | Asst. Forewomen |
| Elevator Operators | Cleaning Women |
| Porters | Porters |
| Window Cleaner by Contract | Court Cleaner by Contract |
| Mason | Inside Glass Cleaners |
| Marble Man | Elevator Cleaners |
| Carpenter Foreman | |
| Carpenters | |
| Painter Foreman | |
| Painters | |
| Electricians | |
| General Helpers | |
| Clerk | |

ELEVATORS

| NO. | STARTED | STOPPED | HOURS RUN | NO. | STARTED | STOPPED | HOURS RUN |
|---|---|---|---|---|---|---|---|
| 1 | | | | 9 | | | |
| 2 | | | | 10 | | | |
| 3 | | | | 11 | | | |
| 4 | | | | 12 | | | |
| 5 | | | | 13 | | | |
| 6 | | | | 14 | | | |
| 7 | | | | 15 | | | |
| 8 | | | | 16 | | | |
| Total | | | | Total | | | |
| Average | | | | | | | |

REMARKS:

Doors found open

Light found burning

_____ Superintendent

Form 9.





1), which is signed by the forewoman who inspects the work of the crew of which she is in charge, and the superintendent's familiarity with the property tells him at once where and when that kind of work is being done or has just been completed.

There are sixteen elevators, eight being at one entrance of the building and eight at the other, four being on each side of the hall. Each group of eight is in charge of an usher whose duty it is to manage their running, and who also gives the number of hours each car is in commission during his tour of duty. This report of the usher (Form 2), also tells when the lights on the main and second floors of the building are turned on and off, and under the head of "remarks" he must also include a written report on the condition of the cars and such other data as will aid the superintendent in keeping in close touch with the affairs of that department.

The Ellicott Square is policed in a most thorough manner, and such a plan is necessary where a large office building is open during the entire twenty-four hours for the convenience of tenants, and their interests must be guarded as well as the safety of the property looked after.

The watchmen have regular hours of patrol and in their reports (Form 3), they are compelled to make note of all doors found open and in all cases where careless tenants or cleaners have left the lights going this fact must be included in the report. Of course the doors are all examined by each watchman as he goes on duty and although those found open are secured the fact must be reported in order to aid in any investigation which might be found necessary growing out of any report of loss. The watchman must also report on the condition of all lights which do not come under the supervision of the ushers.

There are three shifts in most of the departments and crews are on duty the entire time during the twenty-four hours. In the refrigerating room each of the shifts is in charge of an assistant engineer whose report (Form 4), shows the run of each of the three machines together with the amount of ice (in pounds) drawn, and the material used during his tour of duty.

Perhaps the most important of the forms used in the system is the one for the boiler room report (Form 5), as it deals with one of the heaviest expenditures in connection with the maintenance of the building. As in the refrigerating room there are three shifts here and these reports must tell accurately what kind of coal and how much is used in a given tour of duty; the same with the supply of boiler compound, the water consumed on the house and the water register of the current as well as the preceding day. Also in the report must be shown the number of cans of ashes taken from the room during the time as these figures tend to show just what results each crew is getting from the supplies and materials used.

The engine, dynamo and motor report (Form 6), gives concise information showing the running time of each motor and dynamo, the steam pressure, volts, and amperes and all being recorded half hourly by the assistant engineer in charge. Although the character of the report differs, the one used

**ELLICOTT SQUARE**

Report of Chief Engineer for 24 hours ending 8 A.M. _____ 190_____

| ENGINE ROOM STAFF, 8 A.M. TO 4 P.M. | ENGINE ROOM STAFF, 4 P.M. TO 12 M. | ENGINE ROOM STAFF, 12 M. TO 8 A.M. |
|---|---|---|
| Assistant Engineers | Assistant Engineers | Assistant Engineers |
| Oilers | Oilers | Oilers |
| Firemen | Firemen | Firemen |
| Coal Passers | Coal Passers | Coal Passers |

| DAY STAFF | NIGHT STAFF |
|---|---|
| Elevator Repair Man | Elevator Repair Man |
| Machinists | Machinists |
| Steam Fitters | Steam Fitters |
| Plumbers | Plumbers |
| Electricians | Dynamo Tender |
| Helpers | Helpers |
| Clerk | Elevator Oiler |

BOILERS

| NUMBER | TIME Started | TIME Stopped | Hours Run | Average Pressure | Pearl Ejectors No. | Pearl Ejectors Hours Run | Steam on Hoist Hours | Steam on Elev. Pits | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | 1 | | | | |
| 2 | | | | | 2 | | | | |
| 3 | | | | | 3 | | | | |
| 4 | | | | | 4 | | | | |

| | Lbs. H'd Screenings | Lbs. Soft Slack | | | |
|---|---|---|---|---|---|
| Coal | | | Water | House | Gallons |
| Used | | | | Sewer | - |
| Total | | | Consumed | Steam | - |
| | | | Total | | Gallons |

ELECTRIC LIGHT PLANT

| NO. ENG. | TIME Started | TIME Stopped | Hours Run | AVERAGE Volts | AVERAGE Amperes | Total Amp. Hours | Total Kw | Equiv. 16 cp. Lamps |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| Totals | | | | | | | | |

| No. of Meter | REMARKS |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| Totals | |

PUMP ROOM — REFRIGERATING DEP'T

| | Hours Run | REVOLUTIONS Number | REVOLUTIONS Av. per Min. | Machine | Hours Run | Rev. per Min. | Aver. Pressure Cond. | Aver. Pressure Back | Temp. Brine | POUNDS ICE |
|---|---|---|---|---|---|---|---|---|---|---|
| Fly Wheel | | | | | | | | | | |
| Duplex No. 1 | | | | | | | | | | |
| " " 2 | | | | REMARKS | | | | | | |
| " " 3 | | | | | | | | | | |
| House | | | | | | | | | | |
| Fleed No. 1 | | | | | | | | | | |
| " " 2 | | | | | | | | | | |
| Air Comp'r 1 | | | | | | | | | | |
| " " 2 | | | | | | | | | | |
| " " 3 | | | | | | | | | | |
| " " 4 | | | | | | | | | | |
| Brine | | | | | | | | | | |
| Condenser | | | | | | | | | | |
| Drip | | | | | | | | | | |
| Fountain | | | | | | | | | | |
| Vacuum Pump | | | | | | | | | | |

SIGNED _____ CHIEF ENGINEER

FORM 8.





by the employes of the pumproom (Form 7), is of equal importance in the system and the records are taken every half hour.

Many other blanks, such as those used by the crews of carpenters and painters are not shown in the article but they form their part of the system and aid in the make-up of the superintendent's report.

Duplicates of such reports as are necessary for his information go to the chief engineer of the building who in turn files his daily report (Form 8), which covers in a tabloid form the reports of the others. This report gives the information of the others generalized and answers every purpose unless the officers want facts concerning the work and expense of any one of the several crews.

The report to the president is made out by the superintendent (Form 9), and is intended to supply the former official with such information as he would naturally want at his desk for reference should occasion require.

The reports with the exception of that of the superintendent all invite suggestions from employes concerning the general welfare of the company's interests in so far as those employes may be in a position to do so. These suggestions are always given the most careful consideration by the officials of the company and everything considered worthy of serious thought is given a thorough trial. In that way the interest of employes is always "keyed up" and everyone is continually on the alert for something that will work out to the advantage of the company and of course result in mutual benefit of both.—*B. Henshaw.*

### (850) REBATE.

An allowance or discount from the amount of purchase at nominal or par value.

### (851) RECAPITULATION.

A summary made for the purpose of obtaining totals and statistics.

### (852) RECAPITULATING POSTINGS.

For the purpose of checking the accuracy of postings the following method has been found very efficient:

Sort the charge bills in alphabetical order, or as the Accounts Receivable ledgers are arranged.

As the charge bills are posted withdraw loose leaves, or cards, from the ledger and lay them down in regular order as posted. After completing posting to any particular ledger, or section of ledger, recapitulate on an adding machine—1st, total amount of invoices posted; 2nd, total postings.

A comparison will immediately show if any error has been made.

If a bound ledger is used insert slips of paper where amounts are posted, and recapitulate from the guidance of these slips. This is not so satisfactory, however, as the bookkeeper is liable to forget to insert the slip between the pages.

### (853) RECEIPT.

An acknowledgment for value received.

A discharge for money paid.

The endorsement of a check is considered by many business houses as an ample receipt for the payment of an account.

For combined receipt and voucher, see Voucher System.

### (854) RECEIPTS AND PAYMENTS ACCOUNT.

See paragraph 82.

### (855) RECEIVERS' ACCOUNTS.

The forms and methods of accounting required of a receiver, appointed under State law, are prescribed by the State in which the receiver is appointed, but the general rule is that the receiver must keep an account of receipts and payments during his term of office, charging himself with all receipts, and giving details thereof and crediting himself with all expenditures, giving details and vouchers. A record must also be furnished of all claims presented to the receiver for allowance, showing particulars of claims allowed and disallowed. From this account of receipts and expenditures a summary is made showing amount of balance in receiver's hands at date of last account, amount of receipts to present date, amount of payments and allowances from last account to present date, amount of receiver's remuneration or costs, balance now in receiver's hands.

### (856) RECONCILIATION OF BANK ACCOUNT.

See paragraph 368.

### (857) RECORD BOOK OR BLANK.

An account book used chiefly for the compilation of statistical information.

### (858) REDEMPTION FUND.

An amount invested at regular intervals from profits which will be sufficient to discharge an obligation at maturity.

See Reserve and Sinking Funds.

### (859) REDUCTION OF CAPITAL.

An expedient sometimes resorted to by corporations for the purpose of wiping out a large deficit arising from losses sustained in the course of business





### (860) REMITTANCE SHEET.

A blank filled out to accompany check remitted in payment of accounts. These blanks are frequently made a part of the check, stating the particular bills paid and the deductions made, this, together with the check, constituting a satisfactory voucher on the return of the paid check from the bank. (See Voucher Check.)

### (861) RENT ACCRUED DUE.

When the fiscal year closes, say, on December 1st, and rent is payable quarterly, the next payment falling due January 1st, there will be a liability for two months' rent to provide for in the schedule of assets and liabilities. This can be done by opening a temporary account, or by including the item in the balance sheet without carrying it through the books of account, or by treating it as an inventory. In the latter case, which is probably the most satisfactory method, rent account would show as follows:

| Debits. 1908. | | Credits. | |
|---|---|---|---|
| April 1 | $ 300.00 | Nov. 30. P. & L. | $1,100.00 |
| July 1 | 300.00 | | |
| Oct. 1 | 300.00 | | |
| Nov. 30. Rent accrued due for two months | 200.00 | | |
| | $1,100.00 | | $1,100.00 |
| | | Balance brought down | $ 200.00 |

This $200, therefore, shows as a liability on rent account. On January 1st $300 would be paid for rent and charged to rent account, which will then show a balance on the debit side of $100, the proportion of rent payable for that portion of the new fiscal year just completed.

### (862) REPAIRS, RENEWALS AND REPLACEMENTS (NOT IMPROVEMENTS).

Expenditures of this nature should be charged to revenue or deducted from the face value of the assets. The amount paid for repairs merely serves to maintain the value of the original investment, and does not increase it.

In some businesses it is the practice to establish a repairs and renewals fund by setting aside a certain proportion of the profit annually with which to provide for the cost of repairs and renewals necessary, or for anticipated expenditures in this direction.

### (863) RESERVE.

RESERVE ACCOUNT.

A credit balance representing either a reservation of profits to cover

the depreciation of wasting assets included in the Balance Sheet at cost value, or an appropriation from Surplus account to provide against some anticipated loss, such as bad debts.

Some authorities have defined the term "Reserve" as the excess of assets over paid up capital and liabilities. This excess, however, is now usually entitled "Surplus."

The provision against depreciation in the shape of a Reserve account instead of being deducted from the amount of the asset involved, is recommended because it frequently happens that depreciation is over estimated or excessive. If this is found to be the case after the establishment of the reserve for many years, this method makes it a simple matter to retransfer the excess from Reserve to Surplus account, when it becomes available for distribution by way of dividend.

The actual existence of a reserve necessarily depends upon the maintenance of a surplus of assets over liabilities.

The nature of reserves may be described as follows:—

A Reserve against depreciation of specified assets or against contingencies.

A Reserve for the purpose of providing for repairs, renewals and replacements.

A Reserve established to provide working capital, the authorized capital being considered insufficient.

A Reserve established to equalize dividends.

### (864) RESERVE FUND.

### (865) REDEMPTION FUND.

### (866) SINKING FUND.

The variation of accounting nomenclature in connection with Reserve account and Reserve and Sinking funds is confusing and makes the subject somewhat difficult for students to readily understand. A clear definition, however, is that a "fund" refers necessarily to an investment outside of the business, while an "account" is merely a transfer of profits from Surplus, or Profit and Loss account, to an account established to meet anticipated depreciation or liabilities.

The three denominations, viz.—Reserve Fund, Redemption Fund and Sinking Fund are, therefore, synonymous. These funds are usually established for the redemption of bonds, debentures, funded debts, etc.

### (867) REDEMPTION OF BONDS.

While the redemption of bonds, etc., is effected by means of an accumulative reserve taken annually from the surplus or net profit of each year, it must be remembered that the amount realized from the sale of the bonds is





actually in the business and being used as working capital. When, therefore, the bonds have been redeemed and the Reserve Fund is extinguished, the Reserve account on the books still remains open and is usually closed, as above indicated, by a retransfer to Surplus account.

### (868) SECRET RESERVES.

This is a hidden surplus established by an excessive provision against depreciation, or a manipulation of inventories, so that they do not represent the full value of the assets inventoried; or ignoring the increase in value of such assets as real estate, buildings and financial investments. This practice is severely censured by reputable accountants as being dishonest, and a rank injustice to ordinary stockholders which should be prohibited by law.

In some cases bank officials have written down the value of the bank premises, and other banks have established secret reserves in the form of insurance funds against loss of bad loans or embezzlement.

The establishment of a secret reserve should be condemned because it involves an inaccurate Revenue account and an inaccurate Balance Sheet.

### (869) SURPLUS.

The excess of assets over liabilities.

The credit balance of a Profit and Loss account.

That which remains when use or need is satisfied, or when a limit is reached; excess; overplus. (Webster.) This definition clearly indicates the relationship of the term "Surplus" to that of the term "Reserve."

### (870) RESOURCES.

The assets of a business.

### (871) RETAIL BUSINESS ACCOUNTING.

The retail store keeper usually has a number of petty accounts, and welcomes any system which will relieve him from the necessity of keeping ledger accounts in the ordinary style with his customers. A great many systems have accordingly been devised for his benefit.

### (872) ENVELOPE STATEMENT SYSTEM.

Have large sized envelopes made with statement form printed on front—debit and credit columns. Enclose duplicate bills in envelopes and post totals on statement. Use cash book with separate columns for cash sales and receipts from customers applying on account. Post from cash book to statements.

File statements in convenient card-index file alphabetically arranged.

Enter amounts of charge sales each day on "recapitulation" sheet.

Use different colored sheets for merchandise credits, or allowances, and post direct to statements, making recapitulation as in case of charge sales.

In small general ledger keep creditor's accounts, expense accounts, etc., also representative account entitled "Customers' Account." To this account charge total sales, credit total merchandise returns and allowances and total of special column provided in cash book for receipts. The balance of this account will then equal the aggregate of the balance shown on the statements and so prove the accuracy of the work.

### (873) PASS-BOOK SYSTEM.

"For each of our city customers I have a 'pass book.' The name of each customer is written or printed on the 'back' of his book and the books are placed in piles of ten or fifteen just in front of me on my desk; at the close of each day's business each purchaser is entered in the proper book direct from the sales book (or counter blotter).

In making these entries I use a carbon sheet in each book and the original page or slip, after all the purchases have been entered and the total amount footed, is torn out (the pages being perforated for that purpose) and delivered to the customer the next morning by our city solicitor when he calls to take the day's order, the carbon or duplicate copy remaining in the book as our record of the transaction.

I now revise my books and bring the total amount of the day's purchases forward to the new slip. I continue thus from day to day and at the end of the month the last slip shows the total amount of the monthly purchase, and if the customer keeps the slips (which he is instructed to do) they will show a complete, itemized statement of his account.

At the close of the month's business I enter the total amount of each customer's purchase in the journal, posting to the ledger in the usual way, the total amount of all purchases being carried in one entry to the credit of 'mdse. sales.'"

### (874) PASS-BOOKS—VS.—STATEMENTS.

Our store is a modern grocery with about 3,000 accounts. A greater part of these customers formerly used pass books and we found that with our growing business we had to make a change from that system.

Every book-keeper knows the disadvantage of using pass books especially if there are any great number. All orders taken must be copied into the pass books each time, and all purchases are supposed to be entered in the pass book by the clerk making the sale. Then on the first of each month all pass books are supposed to be sent to the store to be compared with our ledger.

One of our greatest troubles was having customers bring in their pass books and expect to pay just what their book called for, when it had not been to the office at all during the month for the purpose of balancing.

In making this change from pass book to statements, we inaugurated





the duplicate order book both for our order men and clerks in the store. Now, with every purchase, the customer receives a duplicate slip. We furnished all our customers with a metal clip to hold their slips. Then on the first of each month we send out our statements calling for dates and amounts which should correspond with all duplicate slips held by the customer.

Where this system proved to be the greatest time saver, was with the order men. With the old system we had to copy every order into the pass books before the goods could be delivered and then we had to wait for the order books to be returned before we could do our posting. With the present system we have just to add up the orders and then separate the original from the duplicate. The duplicates are given to the deliveryman to deliver his goods by, and on delivering same he hangs the duplicate order on the clip thus answering the same purpose as the pass book.

We keep the original order in the office and while the goods are being delivered we can continue our posting. Since using this system we have been able to do our work with two less book-keepers and still keep up-to-date.—*W. A. Chadwick.*

### (875) SYNTHETIC SYSTEM.

What is called by some, the Synthetic Account System, is suitable for a large number of retail stores, where the nominal accounts are very few and practically one merchandise account is all that is needed. By this system a cash journal is used, one column being provided, debit and credit, for each nominal account, one pair of columns for customers accounts, and one pair of columns for creditor's accounts. This book then becomes the trial balance of the business, and is always in balance, while the nominal or general ledger is dispensed with.

This system does not avoid the necessity of accounts with customers and creditors, which should, however, be taken care of in some simple way as above suggested or described.

### (876) LEDGERETTE SYSTEM.

Ledgerettes, or petty ledgers, have also been devised, which are simply indexes devised to contain the carbon copies of statements, these statements, as above shown, constituting the ledger accounts with customers.

(See Department Stores.)

### (877) RETAIL TAILORING BUSINESS ACCOUNTING.

The very nature of the business demands that the accounting system of a retail tailoring establishment be of the very simplest nature consistent with the correct recording of the transactions. The forms presented herewith are designed for the purpose of furnishing quickly all details peculiar to this business with a minimum expenditure of time and labor.

### PURCHASE RECORD.

Form 1 shows a suitable purchase record. After the goods are received and the invoice is O. K. 'd the discounts are figured. The gross amount of the invoice is entered in the "Amount" column and the discount in the "Discount" column, the net amount being carried to the accounts payable. On account of dating, it is desirable to enter the year in which the invoice is payable, particularly if the due date extends into the next year. The discount date, May 10th, is entered in the maturity record as shown in the illustration. At the end of the month the columns are totaled and the following journal entry is made:

| | |
|---|---|
| Purchase Account | $516.40 |
| To Discount | $ 36.15 |
| To Accounts Payable | 480.25 |

### COMBINATION SALES BOOK AND MEASURE RECORD.

No explanation is required as to the method of filling out this form. These orders are made up in books of 50 and numbered in triplicate, the original, duplicate and triplicate being made at the same operation by the use of carbon paper. The original is handed in at the office with the payment, the duplicate is handed to the customer, and the triplicate is retained in the book from which is made the card of instructions for the cutter. The orders in this book are indexed by the name of the customer and the order number is also entered in the index so that these transactions can be readily referred to.

### SALES RECAPITULATION.

Form 3 can be drawn on a sheet of paper of suitable size and such other columns added as are necessary to present the proper statistics. At the end of each day the sales are entered from the sales book and the totals footed in pencil. Should it be desirable to know the sales for any particular day, the difference between the pencil footings would give this information. A record of this nature is of great value for comparative purposes in future years. The total sales for the month (including both cash and credit) as shown by the sales record is entered on the ledger by means of a journal entry:

Customers' Accounts Receivable.

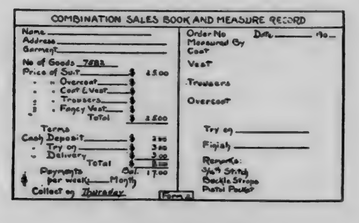
To Sales Account.

It is considered advisable to charge all sales to the customer's account whether they are spot cash or instalments as the customers' accounts form valuable records for circularizing and for future references as to their method of settlement.

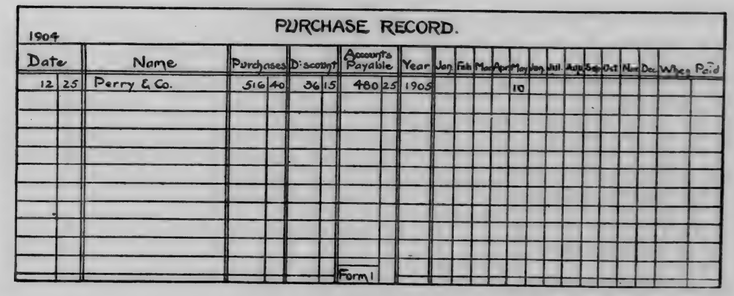
The cash journal submitted in Form 4 will be found a very convenient record. The entries made will explain the operations of this book. The columns on the left hand side of the "Particulars" space represent charges to the respective accounts, and those on the right hand side of the "Particulars" column represent credits. The bank columns are memoranda only. The total deposit for the day is entered in the "Bank Deposit" column and the total amount of checks, issued for each day is entered in the "Withdrawal" column. The difference between the two columns will show the bank balance.






COMBINATION SALES BOOK AND MEASURE RECORD

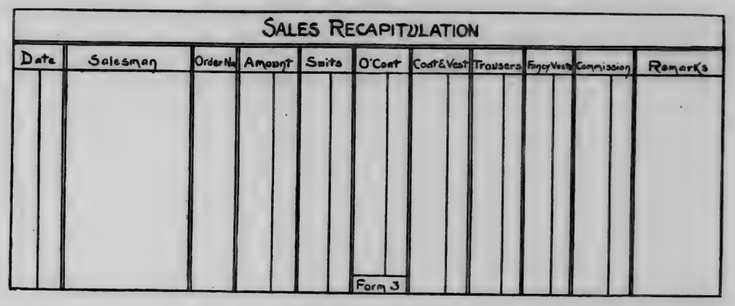
Name
Address
Garment
No of Goods 7683
Price of Suit $ 25.00
" " Overcoat $
" " Coat & Vest $
" " Trousers $
" " Fancy Vest $
Total $ 25.00
Terms
Cash Deposit $ 2.50
" Try on $ 3.00
" Delivery $ 2.00
Total $ 7.50
Payments per week Monthly Qtrl. $ 17.00
Collect on Thursday
Form 2
Order No Date 190
Measured By
Coat
Vest
Trousers
Overcoat
Try on
Finish
Remarks:
Vest Satin
Buckle Stripe
Pistol Pocket


PURCHASE RECORD.

1904

| Date | | Name | Purchases | | Discount | | Accounts Payable | | Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Wks | Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 25 | Perry & Co. | 516 | 40 | 36 | 15 | 480 | 25 | 1905 | | | | | 10 | | | | | | | | | |

Form 1


SALES RECAPITULATION

| Date | Salesman | Order No | Amount | Suits | O'Coat | Coat & Vest | Trousers | Fancy Vests | Commission | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

Form 3

### CUSTOMER'S LEDGER.

A card system will be found a very convenient means for keeping track of the customer's accounts. The cards are filed alphabetically regardless of the date on which the account was created. The particulars are entered on these cards directly from the sales book. Only one debit column is necessary

CASH JOURNAL

Dr | Cr

| Expense | Wages | Commission | Discount Received | Accounts Payable | General Ledger | Cash | LF | Date | Particulars | LF | Cash | General Ledger | Discount Allowed | Accounts Receivable | Bank Deposit | Bank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 75 50 | | Jan 2 | Balance | | | 75 50 | | | | |
| | | | | | | 120 00 | | " 5 | John Smith on % | | | | | 120 00 | | |
| | | | | | | 30 00 | | " " | Wm Jensen | | | | | 30 00 | 40 00 | |
| | | | | 400 00 | | | | | Hadley & Co. | | 380 00 | | 20 00 | | | 380 00 |

Form 4

on the cards, it being preferable to have a separate card for each contract. Several credit columns are necessary to accommodate the instalment payments. The debits from the sales book and the credits from the cash journal are posted daily to the ledger card. The balance due from the customers should be drawn from the cards once a month in order to ascertain whether the amount aggregates the balance as shown in the customers' accounts receivable controlling accounts.

Collection cards are provided similar in style to the ledger card. The customer has a copy on which the collector gives his receipt. For the protection of the concern the office copy should be marked original and the customer's copy duplicate. Every other month the office manager should insist that the collector leave the original card with the customer and take up the duplicate and bring it to the office for inspection. This will prevent the collector holding out payments for a few days and appropriating the money to his own use.

Another method is to change collectors very frequently. Contract jumpers must be promptly reported to the office so that the matter can be taken up without delay. Entries by the collector on the instalment cards must be made in ink or with an indelible pencil.

In order that the collections may not be overlooked the instalment card should be filed ahead to the date on which collections are to be made. Every two or three months the instalment cards should be checked up with the ledger accounts and a notation made on the ledger card as to the date on which the instalment record was last inspected.

### GENERAL LEDGER.

Accounts in the general ledger are opened with cash, accounts receivable, inventory, furniture, fixtures and machines, to which are charged the value of the respective assets. Accounts are opened with accounts payable, bills payable, accrued accounts and any other liabilities. The excess of assets over liabilities is credited to the partners' respective capital account. Accounts are also opened with wages, expenses, commission, discount, insurance, light, etc.





The plan outlined has been found to be very satisfactory and can be recommended to any concern desiring a simple and effective system for keeping in touch with the details of the business.—*C. B. Smeeton.*

### (878) RETAIL INVENTORIES.

While it is a comparatively easy matter to maintain accurate stores records in a manufacturing or wholesale house, the difficult problems are presented by retail stores. While it would be possible to maintain an accurate inventory system for any retail store, the labor involved in most lines would be greater than is warranted by the results. In such lines as these, which include groceries, drugs and kindred lines, in which goods are purchased in bulk and retailed in small quantities, it is best to confine the stock record system to the reserve stock, leaving only the goods on the shelves to be counted when the annual inventory is taken.

But even in such lines, it will very much easier to keep a close check on the stock by properly arranging the goods on the shelves. One large grocery store with which the writer is familiar has installed special shelving, divided into bins. These bins are of the right size to hold a given number of articles. Now that so large a proportion of grocery stock is sold in original packages, such an arrangement is quite easily maintained. In any section of the stock, a certain number of packages of each kind of goods can be specified and not more than this number placed on the shelves at one time. If there is only space for two dozen cans of corn, it will be the work of but a moment to count that stock at any time.

| Article | Style | Date Rec'd | Invoice $ / Discount % |
|---|---|---|---|
| Purchased From | | Quantity | Net $ / Net Cost |
| Stock No | | Sell $ | Frt $ / Each $ |
| Sizes | | | |
| Number | | | |

| Date | Sales | No Sales | Gross Sales | Total Cost | Gross Profit | Avg Profit | On Hand |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

The reserve stock and stock record should be placed in charge of some one man, and when goods are required to replenish the stock on the shelves, a receipt or order should be signed the same as is done in a manufacturing concern. In those concerns whose business will not warrant the employment of a stock clerk, provision should be made for the proper records by placing at a convenient point in the storeroom, requisition slips, which must be filled out and signed by the clerk taking the goods. It is also a very good plan when goods are brought from the storeroom to require an O. K. by the manager of the store.

### (879) RETURNS.

A title applied to goods returned on account of defect in quality or other objection.

A negative to sales or purchases.

### (880) REVENUE.

See Income.

### (881) REVENUE EXPENDITURES.

Any expenditure made in connection with the running expenses of the legitimate business of the firm or corporation concerned is revenue expenditure, because it reduces the profits of the business by the amount involved. When revenue expenditures exceed revenue receipts, the actual capital invested is reduced by the amount of the difference.

### (882) REVENUE ITEMS.

Those debits which are not expected to yield any returns are losses, and therefore revenue items.

Those credits which will not have to be paid out are gains, and therefore revenue items.

### (883) REVENUE RECEIPTS.

Revenue receipts are distinguished from capital receipts by being exclusively derived from the sale or exchange of the commodities which the company was organized to buy and sell, the excess of receipts over expenditures constituting net profit, or added actual capital.

### (884) REVERSE POSTING SYSTEM.

See Checking Systems.

### (885) ROYALTY.

A duty payable to the owner of a mine, or copyright, based upon the number of tons of ore mined or books sold.

### (886) SAFE DEPOSIT COMPANY ACCOUNTING.

This is the simple way to keep the accounts of a safe deposit department in a bank. Here are shown three cards namely: individual renter card; co-renters card; deputy card (blue). These cards explain themselves, but to make things more explicit we shall further describe them.





The individual renter answers the questions suggested by the blank spaces as to his age, complexion, etc., and also suggests a pass-word. He is then given a receipt for his rent and also for the deposit which we invariably require on the keys, and which is refunded upon their safe return. His

NAME: Herman V. Hoffman — SAFE NO. 2090

ADDRESS: 1099 Magnolia Ave. San Jose

| AGE | HEIGHT | WEIGHT | HAIR | COMPLEXION | PASS WORD |
|---|---|---|---|---|---|
| 27 | 6 ft. | 196 | Light | Fair | Sesame |

Dec. 2 - 07 rent paid Dec. 2 - 07 to Dec. 2 - 08 $ 2.50

A: John J. Smith — SAFE NO. 1056

OR B: Mary A. Smith

NAME

ADDRESS A. 424 East Santa Clara St.

| AGE | HEIGHT | WEIGHT | HAIR | COMPLEXION | PASS WORD |
|---|---|---|---|---|---|
| 35 | 5'10" | 184 | Black | Florid | "Ajax" |

NAME

ADDRESS B Same as "A"

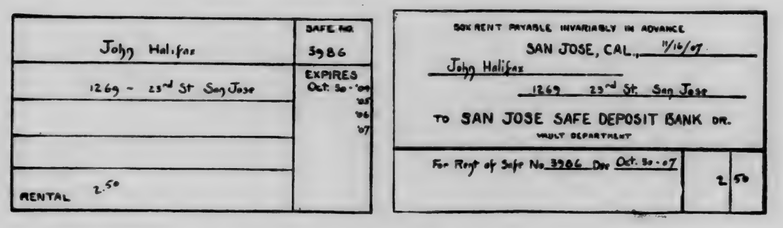
| AGE | HEIGHT | WEIGHT | HAIR | COMPLEXION | PASS WORD |
|---|---|---|---|---|---|
| 28 | 5'8½" | 126 | Brown | Fair | "Acme" |

NAME: Miss Clara Jones — SAFE NO. 2090

ADDRESS: 245 West St. John Street, San Francisco. California

DEPUTY FOR: Herman V. Hoffman

| AGE | HEIGHT | WEIGHT | HAIR | COMPLEXION | PASS WORD |
|---|---|---|---|---|---|
| 23 | 5'6" | 119 | Blonde | Fair | "Clara" |




signature is then taken to the contract on the reverse side of the card; notice that this card also serves as our ledger.

The co-renter's contract, description, and ledger card differs from the individual renter's card just described chiefly in this, that the co-renter's contract is a joint and several one, and permits either to have access to the box after the death of the other.

The power vested in the deputy as evidenced by the deputy card here shown ceases with the death of the renter.

It is in this one respect that a deputy's authority differs from a co-renter's. Note also that provision is made for the revocation of the deputy's power at any time by the original renter.

Of course the cards have tabs on them and guide cards are used which throw out the tens and hundreds into bold relief so that the moment a key is presented one glance at your card tray and you have a complete description of your party also his ledger account and the pass-word, everything that you could wish to know about him.

Note that the deputy card has no tab on it as it reposes immediately behind the card whose deputy it describes, thus one individual renter's card may have several deputy cards behind it.

The deputy cards are also printed upon an entirely different colored card from the others.

Upon our expiration card we note the name, address, number of box, and price per year and when due.

We stack these cards in a two-tray card case, the trays being labeled respectively, say 1907 and 1908.

The guide cards for these trays read January, February, March, etc., *i. e.* the months of the year, so that when a man whose rent expired on Nov. 14, 1907, pays his rent, simply make ditto marks on your expiration card under the month and day thereof, write down '08 under the '07 above and transfer your card from the 1907 tray over to the 1908 tray, post your ledger card, and your work is finished.

We keep a regular account on the bank-sheet called Deposit Vaults, into this goes our regular deposit of rent received every day and against it we draw all checks for the rebate on keys returned when boxes are surrendered.

It is when we come to send out our monthly statements that the beauty of this system is most apparent. For instance, it is the last of January;





simply take out all the cards lying behind your January guide-card, copy the name, amount due, and date due upon your statement blanks, and they're off.

It may be found useful to also index your accounts in an ordinary name index, so that when a man simply gives you his name, without asking to see the number on his key you can tell him when his rent will be due, etc.

I have now detailed a system combining the following striking advantages:

1. Only live accounts to be dealt with.
2. Everything you could wish to know is before you at a glance.
3. Accounts kept and statements sent out with incredible ease and accuracy.—*W. McCormick.*

## (887) SALES BOOKS.

### (888) SALES RECORDS, SLIPS, OR TICKETS.

See Order Blanks, Cash Sales, Credit Sales, Card System, Customers' Records, etc.

### (889) SALESMEN'S COMMISSIONS.

If a straight commission of a certain per cent. is allowed on all sales the problem is much easier to handle, but if the sales are classified and each class takes a different rate of commission it becomes more complex and entails more labor to take care of it. The system here outlined is based on the latter assumption with modifications to fit the former as well.

A commission account is opened with each salesman; to this is debited all moneys or other advances made against the salesman. Credit with all commissions earned on sales and the latter debited to "selling expense" account.

All sales should be made on loose sheets specially ruled, showing name of salesman. After these orders are executed, posted and filed in the sales binder, they are turned over to someone whose duty it is to classify the sales. This is done by setting opposite each item a letter denoting the class; for instance, take the dry goods business, shirtings, sheetings and similar goods, A. Piece goods and like kinds, B. Dress goods and like kinds, C. Notions, hosiery, etc., D., and so on, the letter denoting the classification. These sheets are then posted to a specially ruled loose-leaf Salesman's Commission Book (see illustration), which gives the amount of each class sold and rate of commission on same, each salesman having a separate account on this book also, to which the details of his sales are posted. At the end of each month the total for each salesman, by classes, is ascertained. All goods returned and rebates made against sales are taken care of on a special form of credit memo., which gives name of salesman and original sales sheet affected by the memo. Items on these credit memos. are also classified and the totals for each salesman

entered on the salesman's commission book at the end of the month, same being deducted from his sales and commissions figured on the balance and the amount due each salesman placed to his credit. To obviate the postings of each item on each sales sheet, the total of each class only is entered on the commission book and notation made on the sales sheet of this summary, which can readily be obtained with an adding machine.

Where the commission is based on a straight per cent. on all sales it is only necessary to add each man's sales for the month and figure the commission due on the total. If it is desirable to know the daily sales of each salesman the total for each day can be entered and commissions figured on the monthly total. An ordinary journal ruled account book will answer for entering these records in.—*S. S. Burch.*

OFFICE SALESMAN

| Ent'd Service | Left Service | Salary | Commission | Wk. or Mo. | |
|---|---|---|---|---|---|
| | | | | | |

| Month | Cash Sales | Time Sales | Total Sales | Total Cost | Net Result | Avr. P. M | No. Sold |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

(890) **SECRET RESERVES.**

See Reserve.

(891) **SECTIONALIZATION.**

The process of classifying or grouping accounts, or subdivisions of accounts.

(892) **SECURITY.**

Value deposited or pledged to guarantee the fulfilment of an obligation, requirements of loan, etc.

(893) **SELLING EXPENSE.**

That portion of expense of a business which consists of commissions,





salaries of salesmen, and other expenditures which can be allocated to the cost of selling goods.

(894) AVERAGE COST OF SELLING.

Question.—We have several travelers on the road, and have been endeavoring to get at the actual cost of selling our goods. We have been figuring this cost by the month and then taking the results by the month for one year and trying to arrive at the average cost. We are surprised to find that when figuring by the month we do not arrive at the same result as when figuring the totals for the year.

Here follow the figures for twelve months:

| Amount of Orders. | Cost to Sell. |
|---|---|
| $ 772.94 | $ 80.75 |
| 474.21 | 72.31 |
| 917.56 | 111.61 |
| 815.01 | 117.65 |
| 1,954.51 | 126.56 |
| 1,276.88 | 119.13 |
| 1,219.86 | 76.10 |
| 1,221.05 | 147.20 |
| 2,512.85 | 114.00 |
| 1,810.59 | 144.55 |
| 1,805.11 | 127.05 |
| 354.81 | 94.80 |

The result of the above figures by the month is 11.5. The totals figure out as follows: $15,135.38 cost $1,331.71 giving a result of 8.8. Why is not the result the same figuring any way?

Answer.—The explanation is that the method is incorrect for a yearly average since, by dividing by twelve, he attaches equal importance to a monthly average based on small sales and one based on large sales. In the instance quoted it will be shown that the yearly figure will be lower than the average monthly figure because the months of biggest sales, May, June, July, September, October and November have been those with the lowest monthly average selling cost and these should, of course, affect the result more than the small sales months of February and December.

Here is a simpler instance:

| Sales. | Cost. | Ratio. |
|---|---|---|
| 2 | 2 | 100% |
| 10 | 1 | 10%—the average |
| — | — | —— of 100 and |
| 12 | 3 | 10 is 55%. |

But rearrange the above by splitting the $10 sales into five equal parts, as follows:

| Sales. | Cost. | Ratio. |
|---|---|---|
| 2 | $2.00 | 100% |
| 2 | .20 | 10% |
| 2 | .20 | 10% |
| 2 | .20 | 10% |
| 2 | .20 | 10% |
| 2 | .20 | 10% |
| 12 | $3.00 | 150% |

and divide the total (150) by 6 and you have 25 per cent., the correct average.

Monthly sales average must not be added and divided by 12 to find the yearly average except the sales for each month are equal.—*C. Thompson.*

## (895) SHIP ACCOUNTING.

See Navigation.

## (896) SHIPPING RECORDS.

The following explanation of abbreviations may be found of use to exporters:

(*a*) f. o. b. factory U. S.—Free on board factory. The buyer paying charges for transportation of goods to the customer's warehouse.

(*b*) f. o. b. steamer sailing port in the U. S.—Free on board steamer at sailing port of U. S. After the goods have been placed on board the steamer or sailing vessel the customer assumes all risk.

(*c*) f. a. s. steamer sailing port in the U. S.—Free alongside steamer at sailing port. Under this contract the seller simply obligates himself to place the goods on the dock along side of the vessel which will transport them to their destination.

(*d*) f. o. b. destination.—Free on board destination. Delivered to customer at his warehouse, wherever that may be.

(*e*) c. i. f.—In quoting prices vendor includes cost, insurance and freight until the goods arrive at destination.

(*f*) c. f. or c. a. f.—In quoting prices, vendor includes cost and freight until goods arrive at destination.

## (897) SLEEPING PARTNER.

See Dormant Partner.

## (898) STATEMENT.

A summary of bills to customers, usually made once a month.





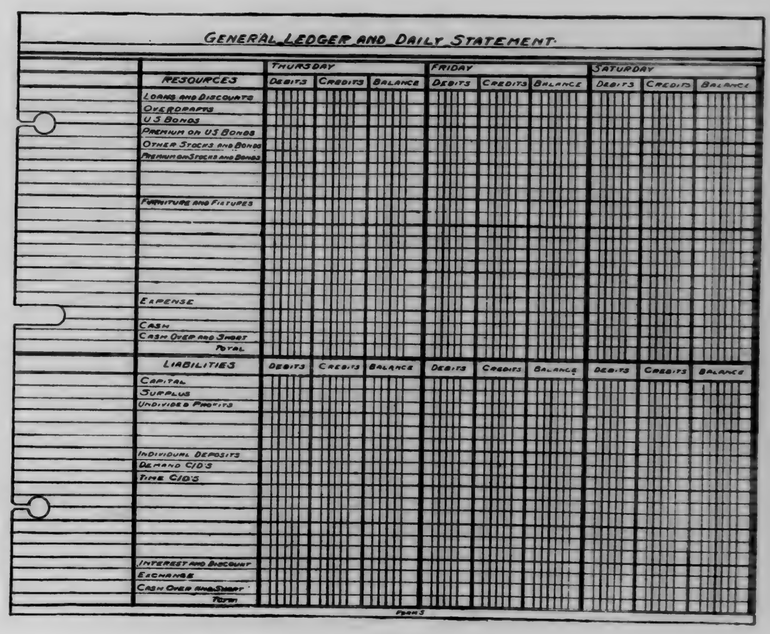
## (899) STATEMENT OF AFFAIRS.

A summary of assets and liabilities. See Balance Sheet, Monthly Statement, Financial Statement, etc.

Also used to designate the schedule of assets and liabilities filed by an insolvent debtor.

## (900) STATISTICAL RECORDS.

Those records which are compiled to show periodically quantities and amounts for purposes of comparison or analysis.



## CHART OF BOOKS ASHLAND BOTTLING WORKS

- GENERAL LEDGER
  - VOUCHER RECORD
    - SALES LEDGERS
      - A LEDGER
      - B LEDGER
      - C LEDGER
        - CASH RECEIPT BOOK
          - OFFICE CASH RECEIPTS
          - SALESMEN'S COLLECTION RECORD
          - CASH SALES
        - CITY LEDGER
          - SALES BOOK
            - INVOICE RECORD
              - FACTORY SHIPPING RECORD
              - SHIPPING RECEIPTS ORDER SHEETS
    - ACCOUNTS PAYABLE RECORD
      - INVOICES
    - FACTORY LEDGER
      - STOCK RECORD
      - SUPPLY RECORD { PURCHASE ORDERS { REQUISITIONS
      - PAY ROLL
      - RECORD OF PRODUCT MANUFACTURED
      - BOTTLE AND CASE RECORD
      - CONSTRUCTION RECORD

Cash Balance 1st of month
Debit footings to date
Credit footings to date

Balance

Cash in Bank
Checks
Tickets
Currency
Gold
Silver
Change

Total

| LIST CHECKS | LIST TICKETS |
|---|---|
| | |

SIGNED _____ Cashier





## CHART FOR CANADA LOOSE LEAF CO LIMITED, MONTREAL, QUE
DEVISED BY G. A ARCHAMBAULT, MONTREAL, CANADA.

PROFIT AND LOSS

**MANUFACTORING ACCOUNT** — COST OF MANUFACTURED GOODS
- PURCHASES — SUB-DIVIDED — PAPER - METAL PARTS - COVERINGS, MILLBOARD AND LEATHER - INKS, OILS, GLUE, AND PASTE -
- DUTY
- FACTORY WAGES
- " RENT AND TAXES
- " LIGHT, HEAT, AND POWER
- " INSURANCE — MACH'Y AND TOOLS - MOULDS AND DIES - ELECTROS, TYPES AND PENS - FACTORY FURNITURE AND FIXTURES -
- IN FREIGHT AND CARTAGE
- WAREHOUSING EXPENSES
- MACHINERY REPAIRS AND SUPPLIES
- FACTORY SUNDRY EXPENSES
- DEPRECIATION — MACH'Y AND TOOLS AND DIES - TOOLS AND DIES - ELECTROS, TYPES AND PENS - FACTORY FURNITURE AND FIXTURES -
- INVENTORY — UNFINISHED GOODS — MATERIALS —

**GENERAL SELLING EXPENSES ACCOUNT**
- SALESMEN SALARIES
- " " COMMISSION
- TRAVELLING EXPENSES
- OUT - FREIGHT AND CITY DELIVERY
- PACKING SUPPLIES AND EXPENSES

**GENERAL EXPENSES ACCOUNT**
- OFFICE AND EXECUTIVE EXPENSES
- ADVERTISING
- OFFICE RENT, LIGHT, HEAT, AND TAXES
- INTEREST AND BANK COMMISSION
- TELEPHONES AND TELEGRAMS
- INSURANCE — MACH'D GOODS - OFFICE FURNITURE AND FIXTURES -
- POSTAGE AND STATIONERY
- GENERAL SUNDRY EXPENSES
- DEPRECIATION — OFFICE FURNITURE AND FIXTURES -
- ORGANIZATION AND INSTALLATION EXPENSES

**TRADING ACCOUNT** — GROSS PROFITS
- MANUFACTURED GOODS — COST PRICE - MANUFACTORING ACCOUNT -
- PURCHASE DISCOUNT
- SALES ACCOUNT — SELLING PRICE - MANUFACTURED GOODS
- SALES DISCOUNT
- INVENTORY — COST PRICE - MANUFACTURED GOODS

**GENERAL PROFIT & LOSS ACCOUNT** — NET PROFITS
- GENERAL EXPENSES ACCOUNT
- SELLING EXPENSES ACCOUNT
- PROFIT AND LOSS ACCOUNT (TRANS'N)
- DIVIDENDS
- SURPLUS AND IMPAIRMENT
- GROSS PROFITS — TRADING ACCOUNT

A B C D E F G H I J K L M N O P Q R S T U V W XYZ

NAME _____ ADDRESS _____

LOCATION OF B'L'D'G. _____ ARCHITECT _____

DATE OF ESTIMATE _____ AMT. OF ORIGINAL EST. _____

" " REVISED EST. _____ " " REVISED " _____

| COMPETITORS ALSO ESTIMATING | DATE CALLED | REPORTS |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | REMARKS | |
| | | |
| | | |
| | | |
| | | |

## (901) STEAM RAILROAD ACCOUNTING.

The accounting for a large railroad is necessarily a vast and complicated undertaking, involving large expenditures and a multitude of details. A book of 600 pages has been written on this subject, so that it is evident it would be impossible in this text-book to attempt to consider railroad accounting in detail, and it is therefore proposed to indicate as closely as possible the principles on which it is organized and the way in which the principal records are kept.

Railroad accounting may be divided into sections as follows:

1. Acquisition of right of way and construction of roadbed, telegraph lines, depot or station buildings.
2. The equipment of rolling stock and capital expenditures generally.
3. Revenue from freight and express traffic.
4. Revenue from passenger traffic.
5. Revenue from other sources, such as rent, restaurant, newstand, etc.

Many railroad enterprises of the present time are first brought into existence through the medium of a construction company, which has seemed almost a necessity to the successful prosecution at least of the initial stages of the enterprise. The construction company is started primarily with a view to some particular railroad or system of railroad building, and its main purpose is to float the bonds and stock of the railroad or railroads to be built and operated. The construction company having a nominal or actual capital—nominal to a large extent, and actual according to the necessities of the case as they present themselves—is chartered with the rights and privileges belonging to a construction company, that is to say, to construct, to build, equip and operate, up to a certain point, any railroad or railroads in a certain given state or territory.

Having proceeded so far, the next step is to lay the foundation for the commencement of the railroad company, and this prior to any work done on the railroad itself. The component parts of the railroad company in its first inception are mainly those composing the construction company or those affiliated with them in the purposes contemplated. The charter is obtained, plans and specifications are prepared and the ground work gone over fully by engineers. Rights of way are secured and the assistance and co-operation is sought of the "powers that be"—political and monetary—in the states or counties through which it is to run. Preparations are made for the issue of all railroad bonds and agreements are entered into as between the railroad and construction companies, by which the latter agrees to perform the necessary work (and take its pay in bonds and stock of the railroad company). With the cash which they have realized for their authorized capital stock and subsequently the proceeds of railroad securities, they commence operations. When ground has been broken and contracts made for the building of the road, the furnishing of rails, building of cars and the providing of the necessary supplies, there has been started a foundation on which to predicate a marketable value for the stock and bonds of the railroad company. Leaving





out of view any of the accounting of the construction company, the railroad company is now prepared to start its books. By showing first, its contract with the construction company, to be recited in due form, giving the full details connected therewith; if it has obtained any cash from any parties interested for its capital stock, that of course would appear regularly in the cash book under its proper headings; frequently the contributions to capital stock are in instalments and the cash entries are: Instalment No. 1, Capital Stock—credited in the cash book—By Amt. Rec'd—from separate contributors, etc. The charter of the railroad company, showing the purposes of the railroad company, the points between which it is to run, the amount and kinds of its proposed capital stock, and the nature and character of the bonds it is entitled to issue. In accordance with the terms of the agreement as between it and the construction company, it then passes over to the construction company the amount of stock and bonds sufficient to provide for the building and equipping of the road—that is to say, the construction company agrees to build so many miles of road at so much per mile, the estimates for which are based upon the difficulties to be overcome in its construction, that is, how many mountains there are to cross, or to tunnel, how many bridges there are to be built, how much filling up there is in consequence of the irregularities of the roadbed and other points as settled by the engineers who have surveyed the route, with such additional provision for cost of rolling stock, building of stations, lines of telegraph and other appurtenances connected with the successful running of a railroad.

As the road progresses and according to its prospects for success, the market for the bonds and stock of the railroad company is found by the construction company for which they make the best terms they can. Usually it is supposed that a considerable bonus has to be given in the outset to some parties—often a banking house—to induce them to take active hold of and to find a market either at home or abroad where these wares can be disposed of. This discount, however, or bonus, is something which has been considered by, and also to be borne by the construction company. The railroad company, however, in reality paying for it in the perhaps greater cost of construction than would have been the case if they had had the cash in hand at start, with which to do the work themselves.

It will be evident on this statement of the case, that until the road has reached the point covered by the contract as between the construction and the railroad companies, all the operations of the railroad either as to movements of freight or carrying passengers belong to and are part of the operations of the construction company until such time as the road is built and ready to be turned over, and the railroad company has practically no books except that to which reference has been made, which shows the inception of the railroad company, its issue of bonds and stock and its inception of such cash as may have come in, in connection with the disposition of its stock and bonds.

Supposing now, however, that the construction company has completed the road and has turned it over to the railroad company and the settlement has been made between them, by which the construction company presents

its bills, setting forth the cost of construction of so many miles of railroad at the agreed upon rate, and the cost of equipment, with full description of the equipment, that is to say, number and kind of locomotives, number and kind of passenger cars, number and kind of freight cars of various descriptions, that is, box, flat, stock cars, refrigerator cars, gondola and other coal cars, cabooses, etc., together with the settlement of those bills by that which was received in payment; and also, as a matter of record for the railroad company, the operations of the road up to the date fixed upon the formal transfer. These bills form the foundation for the opening entries by the railroad company in its books, which will bring in the various account headings of

Cost of Construction,
Cost of Equipment,
Right of Way and Real Estate,

and such other subdivisions as they may deem necessary.

### CAPITAL EXPENDITURES.

Separate capital accounts will be kept for each branch or extension of the road, and these accounts will be subdivided so as to show the principal items of expenditure on rails, sleepers, station buildings, rolling stock, etc. This classification is effected by means of a voucher record and includes expenditures on account of maintenance and renewal of road, materials and wages, repairs of bridges, telegraph lines, signals, buildings, rented properties, and compensation for damages to crops from engine sparks, or for injuries received in train wrecks.

The extent of the necessary classification renders it desirable to keep a separate voucher record for equipment expenditures, which will include materials for repairs of engines, passenger and freight cars, wages paid out on same, materials for repair of engine and car shops, wages paid out on same. The voucher record is summarized at the end of the month to show the total vouchers issued, which in amount, of course, must tally with the total of the various items of distribution of vouchers, and from this is prepared the journal entry of the general ledger book-keeper, reading "Sundries Dr. to Vouchers." Pay rolls for the pay of the entire force of employes of the railroad, whether in the main office or on the line of the road, are also prepared in the disbursement department and also distributed like the vouchers, according to the character of the service for which pay is given. The officers and clerical force in the main office are a general expense, engineers and firemen are motive power, the conductors and brakemen are expense of transportation of passengers or freight, as the case may be, the laborers working upon the line of the road, bridge-builders, surveyors, rodmen and others of that character are charged to maintenance of way. Each particular road, however, has its own mode of designating the kind of items which go to make up each of these operating expenses.





Separate records will also be kept for freight and express traffic expenditures, and passenger traffic expenditures, so that the income derived from each department may be accurately ascertained. The records will include cost of motive power, wages of engineers and firemen, salary and traveling expenses of clerks, etc., attached to the department.

Another record will take care of what we may term administrative expense, which will include salaries and expenses of directors, officers, auditors, clerks, office expense, insurance, etc.

It will thus be seen that from the ledger, to which the totals of the various records are posted, and into which gross receipts from the revenue departments also find their way, the balance sheets and statements of income and expenditures are prepared something after the following style. The statement of assets and liabilities in this case, however, includes operating expenses in the schedule of assets, and gross earnings in the schedule of liabilities, so that it is really a trial balance from the company's general ledger.

I.

ASSETS

| | |
|---|---|
| Cost Road and Equipment | $67,435,772 37 |
| Stocks of other companies owned | 4,121,731 73 |
| Bonds of other companies owned | 4,749,871 48 |
| Lands owned | 512,244 89 |
| Land grants of the State | 1,977,155 82 |
| Foreign land grants (extra-state) | 94,257 29 |
| Cash on hand | 29,735 47 |
| Bills Receivable | 7,172 66 |
| Due from solvent companies and individuals | 378,067 79 |
| Other cash assets. | 1,000 00 |
| Sundries (rights way, franchises, terminals, etc.) | 367,985 96 |
| Operating Expenses (from Operating Expense Books) | 7,528,805 55 |
| Interest funded debt | 2,438,886 40 |
| Other Interest account | 230,032 52 |
| Rentals | 437,622 16 |
| Taxes | 257,766 72 |
| Due from agents | 19,685 21 |
| Dividends on common stock | 515,623 50 |
| Due from connecting lines | 10,408 12 |
| Materials and supplies on hand | 37,629 50 |
| Leased Rolling Stock | 70,000 00 |
| | $91,221,455 14 |

LIABILITIES.

| | |
|---|---|
| Gross Earnings | $10,676,112 43 |
| Surplus carried down from previous year | 3,853,841 21 |
| Capital Stock paid in | 25,788,925 00 |
| Funded Debt | 44,876,454 01 |
| Loans and Bills Payable | 2,180,069 79 |
| Matured interest coupons unpaid | 375,627 83 |
| Audited Vouchers and Accounts | 894,876 40 |

| | |
|---|---|
| Wages due and Salary Account unpaid | 782,557 60 |
| Rentals due | 68,000 00 |
| Net traffic balances due other companies | 64,666 36 |
| Dividends uncalled for | 171,840 33 |
| Construction contracts | 495,250 65 |
| Miscellaneous taxes, etc. | 292,809 25 |
| Interest Account | 542,968 20 |
| Income from other sources, dividends on stocks owned | 134,056 11 |
| Income from bond coupons | 1,750 00 |
| Miscellaneous income, less expense | 21,649 97 |
| | $91,221,455 14 |

II. INCOME ACCOUNT.

| | | |
|---|---|---|
| Gross Earnings from Operation | $10,676,112 43 | |
| Less Operating Expenses | 7,528,805 55 | |
| Income from operation | | $ 3,147,306 88 |
| Dividends on stocks owned | $ 134,056 11 | |
| Interest on bonds owned | 1,750 00 | |
| Miscellaneous Income, less expenses | 21,649 97 | |
| Income from other sources | | 157,456 08 |
| Total Income | | $ 3,304,762 96 |

DEDUCTIONS FROM INCOME.

| | | |
|---|---|---|
| Inst. on Funded Debt accrued | $ 2,438,886 40 | |
| Inst. on interest bearing current liabilities accrued, not otherwise provided for | 230,032 52 | |
| Rents | 437,622 16 | |
| Taxes | 257,766 72 | |
| Other deductions (due from agents and connecting lines) | 30,093 33 | |
| Total deductions from income | | $ 3,394,401 13 |
| Deficit | | 89,638 17 |
| Dividends 2% common stock | | 515,623 50 |
| Total deficit from operation current year | | $605,261 67 |
| Surplus carried down from previous year | | 3,853,841 21 |
| Surplus forward current fiscal year | | $ 3,248,579 54 |

III. CURRENT ASSETS AND LIABILITIES.

| | |
|---|---|
| Cash | $ 29,735 54 |
| Bills Receivable | 7,172 66 |
| Due from solvent companies and individuals | 378,067 79 |
| Other cash assets | 1,000 00 |
| Balance current liabilities | 5,452,709 42 |
| | $5,868,685 41 |





Current Liabilities accrued up to the time of the present report:

| | |
|---|---|
| Loans and Bills payable | $2,180,069 79 |
| Matured interest coupons unpaid, including coupons due | 375,627 83 |
| Miscellaneous | 3,312,968 79 |
| | $5,868,666 41 |

....

The miscellaneous items just given among the current liabilities are the sum of the amounts in the trial balance ranging from $894,876.40 to $292,809.25, including also the interest account, $542,968.20.

BALANCE SHEET.

| | |
|---|---|
| Cost of Road and Equipment, including leased lines | $67,505,772 37 |
| Stocks and Bonds | 8,871,603 21 |
| Lands and Grants | 2,583,658 00 |
| Cash and Current Assets | 415,975 92 |
| Sundries | 367,985 96 |
| Materials and Supplies | 37,629 50 |
| | $79,782,624 96 |
| Capital Stock | $25,788,925 00 |
| Funded Debt | 44,876,454 01 |
| Current Liabilities | 5,868,666 41 |
| Surplus current year carried down | 3,248,579 54 |
| | $79,782,624 96 |

The methods and books used in the various departments of a railroad are so numerous that it is not possible to go into detail in regard to them. They are adapted to record the information required by the various accounting departments, and these requirements we will now endeavor to explain.

FREIGHT TRAFFIC.

The freight business of a railroad is usually much greater than the passenger business, and the system of accounting is by no means uniform, although some general features are much the same with all roads. Every railroad uses a waybill in some form, which gives essentially the same detail, viz.: Date, No., Where from, Destination, Consignor, Consignee, Description of articles and number, Weight, Rate, Local Charges, Advanced Charges (if any), Car No., and in some instances information as to junction points, etc.

Some railroads have monthly, some weekly and some daily reports of freight forwarded and received.

All corporation accounts must have some safeguards that are not so necessary in private business, not because all men are untrustworthy, but where many are employed there may be unfaithful persons, and all safeguards have a tendency to strengthen some who might otherwise be weak.

Freight accounting begins with the delivery of the freight to the carrier. After examination a bill of lading is given, then follows the making of the

way bill. These waybills are almost invariably made in copying ink, the exceptions being very small stations, and there pen and ink copies are made. The freight is then loaded and the way bill given to the conductor. On most roads the way bill goes with the freight, so if a car is stopped anywhere for any reason, the way bill is left with it. When the freight arrives at the destination, it has to be unloaded, inspected and often re-weighed. Notice must be sent to the consignee, and when the goods are delivered by him he must give a receipt for the freight and take a receipt for the goods and then the charges must be accounted for. Out of these transactions grow the reports that are made to the auditor.

Let us look first to the duties of the forwarding agent. First, he must examine the freight offered, count the pieces, see that all are properly marked and boxed where boxing is necessary and weigh them. If the freight is of doubtful value or liable to perish if not called for at once when received at destination, the charges must be prepaid or guaranteed, and the forwarding agent is held liable for these guarantees. If the shipper prepays the charges the forwarding agent is responsible for the correctness of the charges.

When freight is received, the first form used is the bill of lading, sometimes called the shipping bill or dray ticket. This bill of lading is a receipt when signed by the agent, and should give the name of the shipper, consignee, destination, list and weight of the articles and routing. No freight should be received without a bill of lading, as it is the only written authority the agent has for any action or accounting.

We now come to the way bill, which is the only form that passes from the forwarding agent to the receiving agent. It is a different form from the bill of lading in its arrangement of the same items. It adds rate and charges and has spaces for other items peculiar to each road. A way bill should never cover more than one car of freight unless the cars are coupled together for special purpose.

The columns on the way bill will be headed Consignor, Consignee, Articles, Weight, Rate, Advanced Charges, Local Charges, Prepaid Charges and Prepaid Beyond Charges.

The use of the first five columns needs no explanation. The advanced charges accrued before our billing agent received the freight. These charges may be for freight cars on connecting roads, switching charges, or for drayage, and sometimes it is for the cost of the article shipped. Our billing agent is expected to pay these charges to the proper persons and to take a receipt from them. Nowadays it is the rule to pay these charges by draft on the treasurer of the road. The local charges are what our road gets for its haul. Each way bill must have a distinguishing number. It is the custom to commence with No. 1 each month.

Interlining billing of freight is now almost universal. This billing is numbered in series with prefixes which indicate routing, such as I. C. 1 or C. A. 2.

The forwarding agent sends copies of all these way bills to interested parties in traffic and accounting departments. In addition to these copies, a





summary, called a Forwarded Abstract, is made either daily, weekly or monthly, as required by the auditor, on a form with the following headings: DATE | NO. | DESCRIPTION. | WT. | AD. CHARGES. | LOCAL. | P. P.

The items are arranged in groups as to receiving station. We will leave further accounting of freight forwarded until we come to the balance sheet.

When the freight is received, the agent must first notify the consignee of its arrival. Next an expense bill will be made. This expense bill and a receipt for the freight are usually printed together, so the agent, by the use of a carbon sheet, can make out both forms at once. The expense bill will be a copy of the way bill in almost every particular, but the arrangement of this detail will be in a very different form. One of these expense bills should be given with each shipment. It is a very important paper, since no claim will be entertained either for loss, damage or overcharge, which is not accompanied by the original expense bill. The receipt is a very important record for an agent to keep, as, dealing with many strangers or doing a large business, disputes would arise many times if it were not for this receipt. These expense bills and receipts are numbered consecutively, commencing the first of each month at the larger stations and once a year at the smaller stations, and are called progressive or "pro." numbers, to distinguish them from the way bill numbers. In addition to these expense bills and receipts, the receiving agent is required to keep a Freight Received book, which is really a copy of each and every way bill.

The receiving agent is held responsible for the correctness of the charges collected by him. He must either collect the proper amount and remit it or the freight must be on hand. Agents are not allowed to extend credit for a moment, except at the most important stations, and then only on authority of the auditor.

The Freight Received Abstract is almost identical with the Forwarded Abstract, only the general heading being changed. The arrangement of items on this abstract will be grouped as to the forwarding stations.

Both abstracts have summaries so that the totals with each station are shown and a grand total made, which grand total is carried to the balance sheet.

If insufficient charges were collected, the agent is notified of the fact by a correction sheet made out by the revising clerk in the general office, and he must charge himself with it. The auditor cares nothing about his methods of collecting or whether he collects it at all. The agent should have collected the right amount, and he is charged with it even if it comes out of his own pocket. In exceptional cases this rule is not enforced, but such leniency is not common.

When undercharges are collected the original expense bills should be returned and the correction endorsed on its face. When overcharges are refunded, credit is not allowed an agent until he can show shipper's receipt for the overcharge, unless the correction was made before the freight charges were collected. These refunds should also be endorsed on the original expense bills.

A cash book must be kept, showing on one side all collections, giving

Pro. No., W. B. No., Billing Station, and amount collected. This should be posted to the Freight Received book and any unpaid items will then be clearly shown. These unpaid items are listed at the close of each month and the total carried to the balance sheet.

At the close of the month, after the abstracts are correctly made up, the debits and credits are summed up on a sheet called the balance sheet. The debit or left-hand side of this sheet will have the following items on it:

(Heading for the Agent's Statement)
.....R. R. Co.
..... Station.
Agent's Statement for the month of...., 1899.
....., Agent.

| (Left hand side.) | | (Right hand or credit side.) | |
|---|---|---|---|
| 1 | Balance, as per last month's report .....$ | 1 | Balance, as per last month's report .....$ |
| 2 | Uncollected Bills, as per last month's report .....$ | 2 | Advanced Charges on Freight this month .....$ |
| 3 | Advanced Charges on Freight Received this month .....$ | 3 | Over Charges paid this month ...$ |
| 4 | Local Charges on Freight Received this month .....$ | 4 | Cash Remitted Treasurer on this month's account, as per list...$ |
| 5 | Under Charges this month.....$ | 5 | Prepaid Charges on Freight Received this month .....$ |
| 6 | Prepaid Charges on Freight Forwarded this month.....$ | 6 | Uncollected Charges on Freight on hand .....$ |
| 7 | Drafts on Treasurer this month, as per list .....$ | 7 | Balance due the Co.....$ |
| 8 | Local Ticket Sales this month..$ | | |
| 9 | Coupon Ticket Sales this month.$ | | |
| 10 | Balance due agent .....$ | | |
| | $ | | $ |

On the back of this statement there is a place for the remittances and the drafts on the treasurer to be listed. The list of uncollected freight charges is usually on a separate sheet, as it is frequently very long at the large stations.

Now let us look to the explanation of these items on the balance sheet.

First, our agent is expected to have his sheet in balance so this space is not used, by remitting exactly enough to balance. However, this is the ideal and is not generally attained at the smaller stations where cheap help is used. Sometimes the figures as reported are changed in the general office and the balance after correction is shown here. Second, this item compares somewhat with the inventory account in general business in the particular that it is a list of "stock" on hand, and should be carried over from one period to another as the inventory is. Third and fourth items. Our agent charges himself with all charges to be collected by him, whether they accrued on his road or on connecting lines, so he charges himself with both the local charges and the advanced charges, those being the terms used to distinguish between the charges accruing on our road and its connections. Fifth, this item is not used much by some roads. Systems vary in their methods of





correcting errors. Some correct the billing "on its face" and in listing local charges, list the corrected figures. Some roads prefer to have the receiving agent take the charges in the under and overcharge columns. Sixth, as our agent collects the charges on some of the freight forwarded by him, he must account for it, and this is the place. Seventh, our agent must charge himself with all drafts drawn to pay advanced charges and must list these drafts on the back of the balance sheet in the place provided.

Some roads have a separate balance sheet for the ticket business, but unless there is a freight auditor and a ticket auditor this is not necessary. In cases where the accounting is all done in one department, the above form can be used.

### EXPLANATION OF CREDIT SIDE.

Second Item. As the agent pays the advanced charges to the road on which they accrued, he gets credit by putting it here on the credit side of his balance sheet. If, as on most roads, he pays all these items by draft on the treasurer, the amount of the credit here will be exactly the amount of the draft total on the debit side. If, as on some roads, he pays these charges out of his cash, he must take a receipt for the amounts so paid and credit will be allowed. Third Item. Our agent is entitled to credit for all over-charges refunded by him, and this is the place provided for that purpose. He must get a receipt for all of these payments if they were paid after the expense bill was made out and must make a notation of the refund on the expense bill. Fourth Item. All remittances should be listed in the place provided for that purpose on the back of the balance sheet and the closing remittance should be the amount necessary to make a balance of the sheet. Fifth Item. On the debit side our local agent charged himself with all the local charges on freight received, but as some of these charges were collected by the forwarding agent, the receiving agent must take credit for the amount not collected by him for this reason, in this space. Sixth Item. As we cannot expect our agent to remit for any but the collected items and as we charge him with all freight charges on freight received by him, we must provide some place for him to get credit for the items yet uncollected and we do it here.

Some people may wonder how the collection of charges on a shipment going from say Denver to New York, is accounted for.

We will suppose that the shipment is a car load and is shipped by the Union Pacific, Chicago & Alton, Lake Shore and New York Central railroads, and that no system of through billing is used. The agent at Denver will bill out say $25 local charges to Kansas City. At Kansas City the Union Pacific agent will turn the car and an expense bill over to the Chicago & Alton agent, who will pay him the $25 and will make his way bill read, "Advanced Charges" $25, local charges say $20. The Chicago & Alton agent at Chicago will turn the car over to the Lake Shore at Chicago with an expense bill for $45 and the Lake Shore agent will bill it out as $45 advanced charges and say $15 local charges. The Buffalo agent will turn the car over to the New York

Central together with an expense bill for $60 and the New York Central agent will bill it out as $60 advanced charges and say $15 local charges, and upon delivery of the car, will collect $75 and give an expense bill for that amount. Thus it will be seen that each road has been paid as they delivered the car and the total charges are collected at destination.

If a system of through billing was in use for this route, the agent at Denver would bill it direct on New York as if it was a station on the Union Pacific, except that he would have used the series number provided for the routing, and left the divisions to be made by the general office.

### PASSENGER TICKETS.

Accounting for tickets is simple when you know how, but I have always felt that to the uninitiated it must be an enigma, so for their benefit I will outline briefly the methods used.

In passenger accounts we have to do almost entirely with tickets. They are of many forms, all requiring unflagging interest from the time they leave the printers' hands until they are taken up by the conductor and forwarded to the general office. There is no other form used by railroads that corresponds in importance to the passage ticket.

Passenger accounts are much simpler than freight accounts. The passenger buys his ticket and pays for it. The accountant neither knows nor cares who buys the ticket, but in freight handling he must examine and receipt for the property, issue bill of lading, and when goods reach their destination, must hunt up the consignee, collect the charges and get consignee's receipt. The passenger loads and unloads himself, while the handling of freight is very laborious.

The modern ticket is the result of many years of progress. Once tickets were used over and over again. An early device was the use of different colored tickets for different months. Passengers were then compelled to buy a ticket and recheck their baggage at every junction point. The plan of numbering the tickets was perhaps the greatest single improvement.

Tickets are printed in several cities by houses of greatest reliability and responsibility, and by machinery of the highest order. The work is done by trusted employes and many precautions are used to prevent fraudulent tickets from getting on the market.

The supply of tickets that the ordinary railroad keeps on hand to meet the requirements of business from day to day, represents a fabulous sum of money. When these tickets are sent to agents, they are invoiced just as jobbers invoice goods. The ticket stock of a railroad is usually kept by the general passenger agent. When tickets are sent to the agents, a duplicate invoice is sent to the auditor, who charges the agent with the tickets, not in dollars and cents, but as so many tickets of each kind. The agent is required to receipt for these tickets and return the receipt to the general passenger agent.





Some roads require a report of tickets sold for each train, some for each day, and some only weekly or monthly reports.

There are many kinds of tickets in general use. Local tickets are tickets good on only one road. Interline or coupon tickets are good on two or more roads. Mileage tickets are good on one or more roads, as may be agreed upon. There are various kinds of tickets issued under the above general heads. The most common form is the card ticket. It is printed on pasteboard and is of two kinds, single and round-trip. Both selling station and destination are printed on the ticket. This ticket is not used altogether for local passage, as that would require every station to have tickets good for passage to every other station on the road, a useless expense and a waste of room. So we have the blank local ticket for use where for any reason this form is preferable to the card ticket. These tickets are usually printed on safety paper and are provided with a stub, so that the selling agent may keep a record. The greatest objection to this ticket is that the destination has to be written in, a serious matter where many are waiting for tickets. This is the form that is often used for half-fares by tearing off a corner. This corner has to be turned in to the auditor with the report as evidence of half rate.

Interline or coupon tickets are of many kinds, one part being good over each railroad, steamboat or transfer bus. The money for the entire ticket is collected by the road selling the ticket, which road accounts to the various roads over which passage is sold.

Were it not for this ticket, travel between far distant points would be anything but pleasant, as we would have to get up at every junction point and buy a new ticket and recheck our baggage.

Many forms of interline tickets are in use. They differ in arrangement. Each coupon shows the name of the selling road, the character of the accommodation, date of sale, the form and number of the ticket, destination, lines over which the passenger is to go and the junction points.

No ticket is good until it has been stamped by the selling agent.

We will now see how the sales are accounted for. First, we have the card tickets. The report will usually have the name of the station printed on it and columns for each form of card ticket. These columns will be headed "Highest No. on hand," "Commencing No.," "Closing No.," "No. sold," "Rate," and "Proceeds." The difference between the closing number one month (which is the commencing number of the month that follows it) and the closing number of the next month, is the number of tickets sold in the current month.

The report of blank local tickets is made on the same form as to headings, but the names of the stations to which tickets are sold is usually written in, instead of being printed.

All spoiled tickets must be returned for credit, as agents are charged with all tickets not in their cases.

The report of coupon sales is made on another form, with heading substantially as follows: "Destination," "Form No.," "Class," "Highest No. on hand," "Commencing No.," "Closing No.," "No. sold," "Rate,"

"Amount." A summary of sales of all classes constitutes the charge against the agent for the month.

Our agent should remit closely every day and the total remittance should equal the total sales.

The account of conductors' collections is the most difficult one we have to face. It is not the form of this report that will bother us, but to find a system that will be effective as a check on the collections. Neither gate keepers, train auditors nor ticket collectors have proven entirely efficient. There are many reasons why our systems are defective. Conductors may be perfectly honest, but in the many duties that are placed upon them, a system that might be effective would be too laborious. When we consider the duties of a conductor, we will not be so sure that his errors are caused by dishonesty. Some roads run ten or twelve coaches often crowded and doing a local business. In addition to looking after his train, he must take up and cancel every ticket, many of which will be new forms, some issued by roads of which he has never heard, and which may or may not be spurious; issue train checks, etc., etc., besides many other duties. He has no office, but must do his work in the aisle of the car while the train is in motion.

In accounting for money collected the matter is simple enough so far as form goes, as it is only necessary to note the station at which passenger gets on and off and the amount collected. Conductors are, from the nature of their work, a very intelligent class of men. Coming in contact with all classes of people sharpens their wits and in many ways they are the superiors of any class of railroad employes. There is no system of cash fare reports now in use to my knowledge but can be beaten by a shrewd conductor. Accountants have to plan to circumvent all means by which the public or its own employes seek to profit at the expense of the company.

All tickets taken up by the conductors are turned in to the auditor's office with their report and are there sorted and checked against the agent's reports of sales. This sorting and checking requires much work and care, but is regarded essential by most accountants.—*F. M. Weaver.*

## CLASSIFICATION OF EXPENDITURES FOR ROAD AND EQUIPMENT.

### I. ROAD.

#### 1. ENGINEERING.

To this account should be charged salaries and expenses of all engineers, assistants and axmen; costs of teams for transportation of engineers and men to and from work, or upon trips of inspection of line of work or incidental thereto; engineers' instruments, rods, chains, axes, hatchets, tapelines, keel or marking chalk, stakes, profile and drawing paper, tracing linen or paper, cross-section paper, transit and level books, cross-section or topographical





books, india ink and colors, drawing boards, stools, map cases, fuel, light, camp equipage, and other analogous items.

NOTE.—When employes enumerated above are engaged in work not chargeable to construction their pay and expenses should be charged to the specific work on which engaged.

#### 2. RIGHT OF WAY AND STATION GROUNDS.

To this account should be charged the cost of land acquired for roadbed (of necessary width conformable to depth and slopes of excavations and embankments, including borrow pits and waste banks adjoining right of way) and station and terminal grounds; also the cost of land purchased for ingress to or egress from station grounds; salaries and expenses of counsel, right-of-way agent, and engineers and assistants when specially engaged for such matters; cost of stakes used to denote right-of-way limits; expenses of appraisals, or of juries, commissioners, or arbitrators in condemnation cases; cost of removal of buildings (if upon right of way or station or terminal grounds, and not included in property purchased); commissions paid outside parties for purchase of properties for these purposes; costs of plats, abstracts, notarial fees, recording deeds, etc.; and payments for abutting damages.

NOTE.—The estimated salable value of property not required in connection with the operation of the road after completion thereof, but acquired and charged to this account in connection with land needed for right of way and station grounds should, upon completion of the road, be credited to this account and charged to an appropriate property account. Where such property is sold upon or prior to the completion of the road, the proceeds of sale thereof should be credited to this account.

#### 3. REAL ESTATE.

To this account should be charged the cost of land acquired for use directly in connection with the operation of the road, but in excess of and in addition to that actually required for roadbed or station or terminal grounds, including all expenses incurred in connection with such acquisition as enumerated in account No. 2, "Right of Way and Station Grounds."

#### 4. GRADING.

To this account should be charged the cost of grading roadbed, whether excavations or embankments; clearing and grubbing; dressing slopes of cuts and fills; reconstructing pikes or roads; ditching roadbed; berm ditches; cost of material taken from borrow pits, haul if allowed; amounts paid for privilege of making waste banks outside of company's right of way or station grounds; ditches for waterways not specially required by right-of-way agreement (where so required cost would be properly chargeable to account No. 2, "Right of Way and Station Grounds"). This account should include the cost of retaining walls and other masonry or riprap for the protection of embankments, cuts, and slopes; cribbing or bulkheading built to protect the tracks or embank-

ments along the seashore or banks of lakes and streams, including the cost of any cribs, breakwaters, wing dams, or other devices constructed to change the direction of the current of a stream to prevent the washing of the bank; also freight on material, and transportation and subsistence of grading gangs.

If special grading outfits be bought by the railroad company to be used in grading, the cost of such outfits when bought should be charged to this account. The proceeds from sale of these outfits, if sold after completion of grading, should be credited to this account. If, however, the outfits be retained and used, this account should be credited with the inventory value thereof on the completion of grading, and account No. 41, "Work Equipment," charged therewith.

### 5. TUNNELS.

To this account should be charged the cost of tunneling, including such timber as may be used for centering, packing, etc.; cost of steel, stone, brick, cement, sand, lime, salt, piles; timber, spikes, nails, braces, concrete, etc., used in the construction or lining of tunnels; cost of labor preparing or securing them, transportation, scaffolding, cofferdams, and pneumatic caissons; cost of soundings, and machinery, pumps, engines, etc., used for such work.

NOTE.—This account does not include cost of the track through the tunnel or of surfacing such track.

### 6. BRIDGES, TRESTLES, AND CULVERTS.

To this account should be charged the cost of bridges and trestles erected to carry tracks over streams, ravines, streets, or other railways and culverts, both substructure and superstructure, including transportation. This account should include cost of abutments, piers, supports, draw and pier protection; machinery to operate drawbridges; guard rails; masonry ends and wing walls for culverts; cost of inspection of bridge material either at shop or site of structure; costs of tests; cost of wing dams, cribs or ice breakers for regulating the current of a stream or breaking up ice jams; also labor and material used in painting structure.

In case "false work" is furnished by the railway company for erection of bridge superstructure, the cost should be charged to this account, and when removed the value of the material removed should be credited to this account and charged to the account benefited.

### 7. TIES.

To this account should be charged the cost of cross, switch, bridge, and other ties and railway crossing timbers laid in the main track or tracks, sidings, spurs, and repair tracks; in tunnels, stations, shop and other yards; on wharves, piers, track scales, inclines, bridges, trestles, and culverts; to and from coal chutes, coal pockets, fuel and water stations, etc., excluding inclines of fuel stations, tracks in ballast pits, enginehouses, shops, and storehouses, and on





transfer tables and turntables. To this account should be charged also the cost of transportation, inspection, handling (except final distribution), and any process of preservation.

NOTE.—See account No. 20, "Shops, Enginehouses, and Turntables," and account No. 23, "Fuel Stations."

### 8. RAILS.

To this account should be charged the cost of rails laid in the main track or tracks, sidings, spurs, and repair tracks; in tunnels, stations, shop and other yards; on wharves, piers, track scales, inclines, bridges, trestles, and culverts; to and from coal chutes, coal pockets, fuel and water stations, etc., excluding inclines of fuel stations, tracks in ballast pits, enginehouses, shops, and storehouses, and on transfer tables and turntables. To this account should be charged also the cost of transportation, inspection, and handling (except final distribution).

NOTE.—See account No. 20, "Shops, Enginehouses, and Turntables," and account No. 23, "Fuel Stations."

### 9. FROGS AND SWITCHES.

To this account should be charged the cost of frogs, switches, derails, switch lamps, switch locks, and other switch material, including switch stands (throw or lever), frog and switch guard rails, crossing frogs, bolts, etc., used in foundations, or bases, and cost of transportation, inspection, and handling (except final distribution).

NOTE.—See account No. 20, "Shops, Enginehouses, and Turntables," and account No. 23, "Fuel Stations."

### 10. TRACK FASTENINGS AND OTHER MATERIAL.

To this account should be charged the cost of spikes used for laying rails and of fish and tie plates, splice or angle bars, continuous rail joints, chairs, rail braces, bolts, nuts, nut locks or washers used in connection therewith; cost of guard rails on curves and in tunnels; cost of bumping posts; also the cost of transportation, inspection, and handling (except final distribution).

NOTE.—See account No. 20, "Shops, Enginehouses, and Turntables," and account No. 23, "Fuel Stations."

### 11. BALLAST.

To this account should be charged the cost of ballast, whether of broken stone, slag, gravel, or other material specially provided for this purpose; also the cost of loading, hauling, unloading alongside of track, and of transportation.

If the stone or other ballast is produced by the builders of a railway there should be included in the cost thereof quarry and gravel rights, rails, ties,

and other track material laid to and in quarries and gravel pits, together with the cost of labor employed in getting out and preparing the ballast. The salable value of such quarries and gravel pits or of the rights therein upon the completion of construction should be credited to this account.

### 12. TRACK LAYING AND SURFACING.

To this account should be charged the cost of distributing, laying, spacing, and lining ties; cost of laying, spiking, and jointing rails, surfacing and lining track, including the adjustment of rails to proper elevation, and labor of placing frogs, switches, and bumping posts; cost of track tools, including shovels, picks, track jacks, crowbars, levels, spiking mauls, gages and wrenches; cost of spreading ballast and putting it under track; expenses of locomotives, cars, and crews distributing track material, and cost of transportation of men, tools, appliances, and outfits used on this work.

NOTE.—See account No. 20, "Shops, Enginehouses, and Turntables," and account No. 23, "Fuel Stations."

### 13. ROADWAY TOOLS.

To this account should be charged the cost of the first outfit of tools, including hand and push cars, velocipedes, speeders, etc., furnished; section, bridge, carpenter, and other gangs properly to equip them to protect, maintain, and repair the property when it is opened for the handling of commercial traffic.

### 14. FENCING RIGHT OF WAY.

To this account should be charged the cost of material and labor used in constructing board, wire, rail, hedge, stone, or other fences along the right of way or limits of roadbed, including cattle guards and wing fences thereto, and transportation; but no charge should be made to this account for fences constructed around stock yards, fuel stations, station grounds, shops, and on other properties outside of right of way, which should be charged to their appropriate accounts. (The cost of permanent or portable fences for protection of tracks from snow or sand should not be charged to this account, but to account No. 31, "Miscellaneous Structures.")

### 15. CROSSINGS AND SIGNS.

To this account should be charged the cost of labor and material used in constructing farm, country-road, or street crossings at grade, overhead bridges, under grade crossings; all track signs, crossing gates, highway crossing alarms, and watchhouses at crossings; and cost of transportation.

NOTE.—The cost of bridges or trestles carrying tracks over streets should not be charged to this account, but to account No. 6, "Bridges, Trestles, and Culverts."

### 16. INTERLOCKING AND OTHER SIGNAL APPARATUS.

To this account should be charged the cost of interlocking and other





signal apparatus complete, including apparatus for block signals of all classes, when built by contract. If built by the railway company, there should be charged to this account the cost of labor and material, including all levers, racks, wires, pulleys, semaphores, semaphore signals, ground signals, posts, materials in box troughs, and other fixtures; towers and foundations for same; signal bells, posts, power plants, batteries, and wires, bonding rails, and other appliances incident thereto and all other work necessary to complete them; and cost of transportation.

### 17. TELEGRAPH AND TELEPHONE LINES.

To this account should be charged the cost of constructing telegraph and telephone lines, including conduits, poles, cables, wires, billets, insulators, instruments, and all other materials used; also labor employed in the construction work, cost of all tools used; and cost of transportation.

### 18. STATION BUILDINGS AND FIXTURES.

To this account should be charged the cost of material and labor expended on station buildings, including cost of transportation, station signs, platforms, sidewalks, excavations, foundations, drainage, water, gas, and sewer pipes and connections, steam heating apparatus, stoves, electric-light and power fixtures including wiring for same, grading and putting grounds in order after buildings have been finished; electric bells, elevators, and all other material, furniture, or fixtures used to complete the buildings; wells for water supply of stations; salaries and expenses of architects; also cost of fences, hedges, turnstiles, etc., around station grounds.

NOTE.—This account should not include the cost of similar buildings on docks, wharves, and piers, which should be charged to account No. 26, "Dock and Wharf Property."

### 19. GENERAL OFFICE BUILDINGS AND FIXTURES.

To this account should be charged the cost of buildings devoted to general office purposes, the cost of all fixtures thereto attached, and the cost of furniture for the equipment of such buildings.

NOTE.—If the land occupied by general office buildings is not a part of right of way and station grounds, its cost should be charged to account No. 3, "Real Estate."

### 20. SHOPS, ENGINEHOUSES AND TURNTABLES

To this account should be charged the cost of all buildings to be used as shops (including transfer tables), car sheds, or enginehouses (including cinder and drop pits); turntables; plants for furnishing power or for heating and lighting the buildings; platforms, sidewalks, and outhouses in connection therewith; oil houses, sand houses, storehouses for company's material, scrap bins, appurtenances, etc. This account should include amounts paid for

shops, enginehouses, and turntables when erected under contract. If built by the company, there should be charged to this account cost of labor and material; preparing grounds before and clearing up same after construction; foundations; painting; excavation for and lining of turntable pits, and of cinder or drop pits inside or outside of enginehouses; foundations for turntables; loading, unloading, and placing turntables in position; levers, tractors, and stops for handling turntables; sewerage systems; connections with water-supply systems; shop wells; architects' fees for drawing plans and supervision of construction; fences and hedges on and around shop grounds; and transportation and incidental expenditures. To this account should be charged the cost of tracks laid on transfer tables and turntables and those leading therefrom into shops and enginehouses; also the cost of all tracks laid in any of the buildings above described.

### 21. SHOP MACHINERY AND TOOLS.

To this account should be charged the cost of machinery and tools placed in shops or enginehouses, including foundations therefor; cost of transportation, loading, unloading, and placing machinery in position. This account includes the cost of stationary engines and boilers, motors, compressors, ash conveyors, shafting, belting, cranes, stationary and portable forges, lifting magnets, hydraulic, pneumatic, and electric tools and machines, and all other machinery and tools in shops and enginehouses, including the small hand tools necessary first to equip a shop.

### 22. WATER STATIONS.

To this account should be charged the cost of material and labor expended in the construction of water stations for the purpose of supplying locomotives with water, including cost of windmills, pumps, boilers, pumphouses, tanks, tubs, tank foundations, track tanks or troughs, stationary engines, and all fixtures and pipes, standpipes, or penstocks, and connections; pipe lines, wells, dams, reservoirs, settling basins, water-purifying plants, and cisterns; cost of transportation; also tools used in the work. This account should not include water-works, wells, etc., exclusively for supply of shops, power plants, stations, hotels, tenements, or section houses, which should be charged to appropriate accounts.

### 23. FUEL STATIONS.

To this account should be charged the cost of material and labor expended in the construction of coal platforms, coal sheds, coal-pocket chutes, woodsheds and racks, fuel-oil plants, and all machinery or appliances necessary to equip them for service. This account includes inclines of fuel stations and the cost of tracks laid thereon, tipple cars, buckets and cranes for handling, elevating machinery (including gasoline or other engines for operating), dumping machinery, all appliances for weighing coal in pockets and opening coal





pockets, also cost of plants for handling ashes when to be operated in connection with fuel stations, cost of transportation, architects' fees, etc.

### 24. GRAIN ELEVATORS.

To this account should be charged the cost of grain elevators, including cost of foundations, conveyors, fixtures, and machinery; the cost of transportation and other charges incident to construction. This account does not include the cost of small storage elevators at way stations, which are considered to be station buildings.

### 25. STORAGE WAREHOUSES.

To this account should be charged the cost of storage warehouses, including machinery and fixtures therein; cost of transportation and all other expenditures incident to construction.

NOTE.—The buildings herein referred to are not the ordinary freight warehouses or stations where freight is received for shipment, etc., but warehouses in which merchandise is stored, and which the railway company or others operate as storage warehouses.

### 26. DOCK AND WHARF PROPERTY.

To this account should be charged the cost of docks, wharves, ferry or other landings, and inclines to transfer steamers, including buildings, structures, coal and ore handling machinery thereon and appurtenances, dredging of slips, piling, filling cribs, pile protection, building cofferdams, pumping or bailing water, masonry walls or filling, etc., cost of transportation and all other expenditures incident to construction, except the cost of tracks.

(The cost of ground on which docks or wharves are built and of riparian or water-front rights in connection therewith should be charged to account No. 2, "Right of Way and Station Grounds:")

### 27. ELECTRIC-LIGHT PLANTS.

To this account should be charged the cost of labor and material, including cost of transportation, used to put in operation either arc or incandescent lighting plants (when not in connection with station buildings or shop plants, and so covered by account No. 18, "Station Buildings and Fixtures," or No. 20, "Shops, Enginehouses, and Turntables"), such as dynamos, engines for running dynamos, wire constituting lines, glass globes, carbon or arc lights, carbonized filament for incandescent lights, poles, hangers for lights, insulators, and every expense incidental to the erection of the plant. When it is necessary to erect a building for an electric-light plant, the entire cost thereof should be charged to this account.

28. ELECTRIC-POWER PLANTS.

To this account should be charged the cost of stations where electric power is generated for operation of trains and cars, whether operated by steam or water power, including the cost of erection of power house and car sheds at power plant; flowage rights; all expenditures for labor and material, reservoirs, dams, penstocks, water wheels, or turbines; engines, boilers and machinery, pumps, condensers, foundations and settings for steam plants; generators, foundations, settings, switch boards, and lighting apparatus for electric-power plants. (Cost of plants for furnishing power at shops should be charged to account No. 20, "Shops, Enginehouses, and Turntables.")

29. ELECTRIC POWER TRANSMISSION.

To this account should be charged all expenditures for labor and material for transmission of electricity for power purposes, including span, guard, feed, and overhead trolley wires, poles, cross-arms, brackets, insulators, and connections; third rails, including braces, supports and devices for insulating, covering, or protecting; bonding rails, including connecting plugs, insulating mats, plugs, or other devices; switch boards, switches, cut-outs, transformers, etc., (not at power stations or substations); and any other expenditures incurred in connection with the building of lines for the transmission of electric power.

30. GAS-PRODUCING PLANTS.

To this account should be charged the cost of labor and material, including cost of transportation, used to put into operation a gas producing or compressing plant complete. When it is necessary to erect a building for a gas-producing plant, the entire cost thereof should be charged to this account.

31. MISCELLANEOUS STRUCTURES.

To this account should be charged the cost of structures of every character, including cost of material, labor, transportation, and all incidental expenses connected therewith, which are permanent and enter into the cost of road, and which are not otherwise herein particularly referred to, and for which no account has been provided; the object being to designate one general classification, to which may be charged the cost of all minor structures and in this way avoid increasing the number of primary accounts.

32. TRANSPORTATION OF MEN AND MATERIALS.

To this account should be charged the fares of laborers and freight charges on material, outfits, and supplies employed in construction work paid by the railway company and properly chargeable in expenditures for road, but which can not be correctly charged under any other construction account. This





account may include such items as fares of contractors, their walking bosses, paymasters, clerks, and storekeepers; of labor agents; of men hired by labor agencies and shipped out on the line who may be employed on any character of work; freight on powder, dynamite, and other explosives, hay, grain, groceries, and other supplies for contractors, stores to be sold to subcontractors, station men, laborers, and others; and other analogous items.

33. RENT OF EQUIPMENT.

To this account should be charged rent, either on the basis of per diem, mileage, or at fixed rates per month, of all equipments (the cost of which is not charged to the line under construction) used in construction of new lines.

34. REPAIRS OF EQUIPMENT.

To this account should be charged repairs and renewals of all equipment used in construction of new lines, not otherwise provided for.

35. EARNINGS AND OPERATING EXPENSES DURING CONSTRUCTION.

To this account should be charged the cost of operating a piece of road while in charge of the construction department and before it is opened for commercial operation. It includes the cost of running construction, material, or other trains when the cost of operating such trains can not properly be charged to any specific account. To this account should be credited amounts collected for rents of buildings and other properties and for the transportation of commercial freight or passengers on construction, material, or other trains.

35½. INJURIES TO PERSONS.

This account includes all expenses incident to injuries to persons when caused directly in connection with construction of a new road; proportion of salaries and expenses of physicians and surgeons, expenses of undertakers, nursing and hospital attendance, medical and surgical supplies, artificial limbs, funeral expenses, railway and carriage fares for conveying injured persons and attendants; proportion of pay and expenses of claim adjusters and their clerks, and pay and expenses of employes and others called in consultation in relation to the adjustment of claims coming under this head; also witness fees and amount of final judgments.

NOTE.—This account does not include such expenses incident to injuries to persons as are properly includible in Account No. 35, "Earnings and Operating Expenses during Construction."

36. COST OF ROAD PURCHASED.

To this account should be charged amounts paid for road purchased. In this connection attention is specially directed to the note at the beginning

of this classification. Where payment is made by an issue of the company's securities or other commercial paper, the cash value thereof at the time of such payment should be charged.

When the purchase price paid includes equipment, in addition to the road, the equipment received should be appraised and the appraised value thereof should be charged to the appropriate equipment accounts, the difference between same and the total amount paid in cash, or the cash value of securities issued in payment, being charged to this account.

When contracts are entered into for the construction of a completed road for a fixed amount, whether payable in cash or in the company's securities, the amount paid in cash or the cash value of the securities issued in payment should be charged to this account. In case the contract amount includes equipment in addition to the road, the value of the equipment should be ascertained by appraisement and treated as above provided.

## II. EQUIPMENT.

### 37. STEAM LOCOMOTIVES.

To this account should be charged the cost of steam locomotives and tenders, including all appurtenances, furniture, and fixtures necessary to equip them for service, purchased or built at the company's shops, including cost of transportation and setting up after receipt from builders.

### 38. ELECTRIC LOCOMOTIVES.

To this account should be charged the cost of electric locomotives, including all appurtenances, furniture, and fixtures necessary to equip them for service, purchased or built at the company's shops, including cost of transportation and setting up after receipt from builders.

### 39. PASSENGER-TRAIN CARS.

To this account should be charged the cost of passenger-train cars of all classes, including all appurtenances, furniture, and fixtures necessary to equip them for service, purchased or built at the company's shops, including cost of transportation.

NOTE.—The following cars are classified as passenger-train cars.

Air-brake instruction
Baggage
Baggage-express
Baggage-mail
Baggage-mail-express
Buffet
Business
Cafe
Chair
Colonist
Combination passenger and baggage
Dining
Emigrant
Express
Library
Mail
Milk
Observation
Officers'
Parlor
Parlor-baggage
Passenger
Passenger-baggage-mail
Pay
Postal
Refrigerator-express
Smoking
Street
Tourist





### 40. FREIGHT-TRAIN CARS.

To this account should be charged the cost of freight-train cars of all classes, including all appurtenances, furniture, and fixtures necessary to equip them for service, purchased or built at the company's shops, including cost of transportation.

NOTE.—The following cars are classified as freight-train cars.

Beer
Box
Cabin
Caboose
Charcoal
Coal
Coke
Dump (commercial, coal or stone)
Flat
Fruit
Furniture
Gondola
Gondola-hopper
Gondola-long
Gun trucks
Hay
Lime
Logging
Oil tank
Ore
Platform
Polling
Poultry
Produce
Rack
Refrigerator
Stock
Tank and water (when used as commercial cars)

### 41. WORK EQUIPMENT.

To this account should be charged expenditures of the following nature, ing all appurtenances, furniture, and fixtures necessary to equip them for service, purchased or built at the company's shops, including cost of transportation.

If special grading outfits be bought by the railway company to be used in grading, the cost of such outfits when bought should be charged to account No. 4, "Grading." The proceeds from sale of these outfits, if sold after completion of grading, should be credited to that account. If, however, the outfits be retained and used, account No. 4, "Grading" should be credited with the inventory value thereof on the completion of grading and this account should be charged therewith.

NOTE.—The following equipment is classified as work equipment:

Ballast
Ballast, unloaded cars
Boarding
Bridge
Camp
Cinder
Concrete mixer
Derrick
Dirt spreader
Ditching
Dump
Dynamometer
Grading
Gravel
Indicator
Locomotive tanks, used permanently as water cars
Outfit
Painters
Pile drivers
Rail saw
Salt
Sanding
Scale test
Snow dozer
Snow drags
Snow ploughs (not attached to locomotives but moved by them)
Sprinkling
Steam shovels
Steam wrecking derricks
Supply
Sweeper
Tool
Tool and block
Water
Weed burner
Wrecking

### 42. FLOATING EQUIPMENT.

To this account should be charged the cost of marine or floating equipment of all kinds, including all appurtenances, furniture and fixtures necessary to

equip them for service, purchased or built at the company's shops or yards, including cost of transportation.

NOTE.—The following equipment is classified as floating equipment:

| | | |
|---|---|---|
| Barges | Ferryboats | Scows |
| Canal boats | Lighters | Steamboats |
| Car and other floats | Power launches | Steamships |
| Dredges | Power lighters | Transfer boats |
| | | Tugboats |

## III. GENERAL EXPENDITURES.

### 43. LAW EXPENSES.

To this account should be charged expenditures of the following nature, incurred during the progress of the construction of a road, namely, the pay and expenses of all counsel, solicitors, and attorneys, their clerks and attendants and expenses of their offices; law books, printing briefs, legal forms, testimony, reports, etc.; fees and retainers for services of attorneys not regular employes of the company; payments to arbitrators for the settlement of disputed questions; costs of suits and payments of special fees, notarial fees, and witness fees; and expenses connected with taking depositions; also all legal and court expenses.

When any of the expenses above enumerated can be charged directly to the account for which incurred, they should be so charged and not to this account.

(Expenses in connection with condemnation of right of way or station and other grounds should be charged to account No. 2 "Right of Way and Station Grounds," or account No. 3 "Real Estate.")

### 44. STATIONERY AND PRINTING.

To this account should be charged cost of stationery, stationery supplies, postage, and printing blank books and forms used by all classes of employes in the prosecution of construction work not otherwise provided for.

### 45. INSURANCE.

To this account should be charged insurance premiums paid on property of the line under construction and before the road is opened for operation.

NOTE.—Where insured property is damaged or destroyed the account to which such property was charged should be credited with the amount of insurance recovered in respect thereof.

### 46. TAXES.

To this account should be charged state, county, township, city, school, road, and all other taxes and assessments levied and paid on property belonging to the company, while under construction and before the road opened for





commercial operation, except special taxes assessed for street and other improvements, such as grading, sewering, curbing, guttering, paving, sidewalks, etc., which should be charged to the account to which the property affected was charged.

### 47. INTEREST AND COMMISSIONS.

To this account should be charged cash commissions and the actual cash value of other commissions on securities sold; interest, cash commissions, and the actual cash value of other commissions on loans effected and on notes issued for money borrowed for construction purposes or for purchase of equipment; interest on overdue payments to contractors or other creditors; and interest, cash commissions and the actual cash value of other commissions and exchange on other commercial paper issued for similar purposes. Interest on bonds and other securities, including equipment bonds or car trust notes, paid or accrued during construction and before line is opened for operation, is chargeable to this account. To this account should be credited all interest received on moneys acquired for purposes of purchase or construction of road or equipment.

### 48. OTHER EXPENDITURES.

To this account should be charged organization expenses, including the payment of all necessary fees; the cost of printing certificates of stock and bonds, with payments to trustees and expenses incurred in the disposal of securities; salaries and expenses of executive and general officers of a road under construction; clerks in general offices engaged on construction accounts or work; rent and repair of general offices when rented, with the furniture and office expenses; also all items of a special and incidental nature which can not properly be charged to any other account in this classification.

# CLASSIFICATION OF OPERATING REVENUES.

## I. REVENUE FROM TRANSPORTATION.

### 1. FREIGHT REVENUE.

This account includes amount earned by a carrier for the transportation of freight.

To this account should be credited a carrier's proportion of receipts for freight transportation; also overcollections made in excess of proper rates, such overcollections to be held subject to claim. To this account should be charged overcharges paid resulting from the use of erroneous rates, weights, or classification; amounts paid for switching charges absorbed; authorized allowances and localized freight arbitraries; also amounts paid for switching or to transfer companies for completing a haul or effecting store-door deliveries, when the cost of such service is included in the rate charged by the carrier; uncollected

earnings on freight destroyed in transit; and on short and lost freight; also uncollectible undercharges determined after delivery has been made.

NOTE.—When a lessee company transports freight over the tracks of another carrier, it should include the entire compensation in its revenues and statistics, charging the appropriate joint facilities, expense and rental accounts with the amounts paid to the lessor company, and the lessor company should credit the same accounts.

### 2. PASSENGER REVENUE.

This account includes amounts earned by a carrier for the transportation of passengers.

To this account should be credited a carrier's proportion of receipts from the sale of tickets (including tickets for corpses) and the collection of cash fares; also overcollections made in excess of determined rates, such overcollections to be held subject to claim. The account should be charged with amounts paid for fares refunded; tickets redeemed; also amounts paid for transfering passengers and baggage between stations or depots, except in cases where the transfer of both passengers and baggage is provided in the division of the through rate.

NOTE A.—Cash fare penalty collections made by conductors and the proportion of amounts collected on sale of mileage tickets and mileage credentials subject to refund should not be credited to Passenger Revenue.

NOTE B.—Passenger Revenue should be credited with interchangeable mileage tickets only as the mileage therefrom is honored for transportation. Receipts from interchangeable mileage books when sold should be credited to an open account, which account should be charged and Passenger Revenue credited as the mileage is honored.

NOTE C.—When a lessee company transports passengers over the tracks of another carrier on the basis of a proportion of revenues, it should include the entire compensation in its revenues and statistics, charging the appropriate joint facilities expense and rental accounts with the amount paid the lessor company, and the lessor company should credit same accounts.

### 3. EXCESS BAGGAGE REVENUE.

This account includes amounts earned by a carrier for the transportation of baggage in excess of free authorized allowances; also packages, articles, dogs, etc., incident to transportation of passengers usually transported in baggage cars, for which a charge is made. To this account should be charged all baggage refunds.

### 4. PARLOR AND CHAIR CAR REVENUE.

This account includes amounts earned by a carrier in fares collected from passengers for seats in parlor, observation, chair, and other special passenger cars operated by railway companies when not inconsistent with the Classification of Revenues and Expenses for Outside Operations. To this account should be charged authorized refunds and tickets redeemed.





### 5. MAIL REVENUE.

This account includes amounts earned by a carrier for the transportation of mails, and for the use of railway post-office cars, special facilities, and bonuses for special mail transportation. To this account should be charged fines and penalties imposed by the Government when not collected from agents or employes.

### 6. EXPRESS REVENUE.

This account includes amounts earned by a carrier for transportation and for facilities on trains and at stations incident to the transportation of express matter, not including the separate rents of offices at stations. (See account No. 18, "Rents of Buildings and Other Property.")

When a railway company transacts an express business through its regular railway organization, the earnings therefrom should be credited to this account.

### 7. MILK REVENUE (ON PASSENGER TRAINS).

This account includes amounts earned by a carrier for the transportation of milk and cream on passenger trains. To this account should be charged refunds and overcharges on milk and cream so carried.

### 8. OTHER PASSENGER-TRAIN REVENUE.

To this account should be credited all amounts earned by a carrier incident to the operation of passenger trains not otherwise provided for.

### 9. SWITCHING REVENUE.

This account includes amounts earned by a carrier for switching service performed on the basis of tariffs. To it should be charged all overcharges on such switching.

### 10. SPECIAL SERVICE TRAIN REVENUE.

This account includes amounts earned by a carrier for running chartered trains, either on a basis of a rate per mile or a lump sum for the trains; for handling circus or theatrical company trains under contract when specific amounts are charged for transportation between designated stations, for running chartered trains for the Federal or State governments carrying troops, munitions of war, camp outfits, etc. To this account should be charged refunds and overcollections on such business.

### 11. MISCELLANEOUS TRANSPORTATION REVENUE.

To this account should be credited all amounts earned by a carrier from transportation not otherwise provided for.

## II. REVENUE FROM OPERATIONS OTHER THAN TRANSPORTATION.

### 12. STATION AND TRAIN PRIVILEGES.

This account includes a carrier's revenues from weighing, vending, and other automatic machines located at stations; from advertising at stations and on trains; from news companies or others for the privilege of operating news stands at stations and selling papers, periodicals, fruit, etc., on trains; from telephone companies for the privilege of installing and operating commercial telephones at stations; and from other similar sources.

### 13. PARCEL-ROOM RECEIPTS.

This account includes a carrier's revenue from the operation of parcel rooms, the expenses of which are included in operating expenses.

### 14. STORAGE—FREIGHT.

This account includes a carrier's revenues for storage of freight. To it should be charged authorized refunds.

### 15. STORAGE—BAGGAGE.

This account includes a carrier's revenues for storage of baggage. To it should be charged authorized refunds.

### 16. CAR SERVICE.

This account includes amounts accruing as penalties for delay in loading or unloading cars (demurrage). To it should be charged authorized refunds.

### 17. TELEGRAPH SERVICE.

This account includes a carrier's revenues from commercial telegraph business transacted by it when the expense of transacting such business can not be separated from the expense of conducting the railway telegraph service; amounts received from telegraph companies, whether proportion of earnings or otherwise, for the privilege of transacting a commercial telegraph business in offices along the carrier's lines, when the carrier furnishes some service of its employes whose wages are included in operating expenses.

NOTE.—When a telegraph company rents the telegraph line or a carrier and pays all expenses incident to its maintenance and operation, the rent received should be treated as Income.

### 18. RENTS OF BUILDINGS AND OTHER PROPERTY.

This account includes a carrier's revenues from rents of buildings, land, and other property, such as depot and station grounds and buildings, union





depots, general and other offices, rooms rented at stations, docks, wharves, ferry landings, elevators, stock yards, fuel yards, repair shops, section and other houses, etc., when such property is used in connection with operations and the expense of maintaining and operating it can not be separated from the expense of that portion used by the carrier.

### 19. MISCELLANEOUS.

This account includes a carrier's revenues from operation not otherwise provided for; also collections from individuals and companies for the privilege of handling freight and passengers over a carrier's wharves and docks; amounts received from others for mooring and anchoring boats at such wharves and docks, and for water furnished them when the water plant is operated by the carrier: receipts from coal and ore docks, stock yards, and grain elevators when not treated as "Outside Operations"; amounts received as trackage for detouring trains; collections for the use of a carrier's bridge by pedestrians, street-car lines, vehicles, etc., when the expense of maintaining and operating such property can not be separated from the expense of that portion used by the carrier.

NOTE.—When a bridge of one carrier is used by another and such use is paid for either on the basis of a flat rent or a charge per train mile, or a toll per passenger, per ton, or per car, the revenue therefrom should be credited to appropriate accounts.

## CLASSIFICATION OF OPERATING EXPENSES.

## I. MAINTENANCE OF WAY AND STRUCTURES.

### 1. SUPERINTENDENCE.

This account includes:

PAY OF OFFICERS.—Pay of vice-president or assistant when directly in charge of maintenance of way and structures, chief engineer, assistant chief engineer, chief engineer maintenance of way, engineer maintenance of way, assistant engineer maintenance of way, engineer of bridges and buildings, principal assistant engineer, engineer right of way, architect, division engineer, assistant engineer, assistant division engineer, roadmaster, assistant roadmaster, master carpenter, assistant master carpenter, supervisor, assistant supervisor, fire and sanitary inspector, and other officials engaged in the maintenance-of-way-and-structures department.

PAY OF CLERKS AND ATTENDANTS.—Pay of chief and other clerks, draftsmen, rodmen, transitmen and chainmen, and attendants in offices and on special cars of officers whose pay is charged to this account.

OFFICE AND OTHER EXPENSES.—Rent and cost of repairing rented offices, rent and cost of telephone service, telegraph messages, heat, light, ice, water, furniture, and supplies for offices of officers whose pay is charged to this

account; incidental office and traveling expenses of such officers and their clerks; cost of provisions for and expenses of special cars when used by them, and cost of running special trains for officials mentioned; premiums on fidelity bonds of such officers and their assistants; expenses of photographing buildings and structures.

Cost of drafting and engineering instruments and expenses of repairing same and cost of supplies (except stationery and printing) used by officers and employes whose pay is charged to this account.

The following is a list of the more important articles chargeable to this account.

Atlases
Barometers
Books, scientific and reference
Boxes for blue prints
Boxes for drawing instruments
Cameras and supplies for
Chains
Compasses
Curves
Directories
Drawing boards
Drawing Instruments
Field glasses
Keel
Level rods
Levels
Magnets
Magnifiers
Oilstones
Pantographs
Parallel rulers
Periodicals
Plane tables
Planimeters
Plummets
Protractors
Ranging poles
Rearing glasses
Rods
Scales
Section liners
Sextants
Slide rules
Stakes
Straightedges
Tacks for drawing boards
Tally registers
Tapelines
Tee squares
Telescopes
Thermometers
Tin boxes for tracings and prints
Transits
Traverse tables
Triangles
Tripods
Verniers

NOTE A.—When employes enumerated above are engaged in work not chargeable to "Maintenance of Way and Structures," their pay and expenses should be charged to the specific work on which engaged.

NOTE B.—When officers and others above enumerated have supervision over other departments also, their salaries and expenses should be apportioned equally between the departments over which they have jurisdiction.

### 2. BALLAST.

This account includes all expenses incident to the purchase and production of ballast, as follows: Purchase price of gravel, stone, slag, cinders, sand, and other material used for ballast, including freight charges, if any, and cost of first unloading; payments for gravel and quarry rights and privileges, expenses of sinking test holes; expenses of locomotives and work trains while engaged in delivering ballast at points where used.

When a gravel pit or quarry is to be opened, the operations of which are likely to extend over a long period, an account should be opened designated "Operations of Gravel Pit at ————," or "Operations of Quarry at ————," as the case may be.

To such account should be charged:

(a) The excess cost of the land over its estimated value after the gravel or stone has been removed. (Such estimated value being charged to an appropriate capital account.)





(b) The expenses of clearing, stripping, draining, and ditching the land, and of moving and changing fences and buildings preparatory to opening.

(c) The cost of rails and fastenings, in excess of their estimated scrap value, used in constructing tracks to and in the gravel pit or quarry. (Such estimated scrap value to be carried in an appropriate material account.)

(d) The total cost of ties and other material and of labor expended on such tracks.

(e) Cost of labor and train service (see account "Roadway and Track") employed in producing, quarrying, and loading ballast, including operations of stationary engines, steam shovels, stone crushers, etc., and watchmen.

(f) Repairs of stationary engines, steam shovels, stone crushers, and other similar machinery used in producing ballast.

(g) Depreciation of machinery permanently used in gravel pits and quarries.

(h) Cost of explosives, hand tools, and miscellaneous expenses.

This "Operation of Gravel Pit" or "Operations of Quarry" account should be credited from month to month with the number of cubic yards used on the basis of the average cost of production, and account "Ballast" or other proper account charged. The average cost of production should be determined by dividing the total charge to the account of any pit or quarry by the estimated number of cubic yards it contains.

As stripping and other preparatory expenses are not always incurred in full before beginning to take out the gravel or stone, the cost of production should include an estimate of the total of such expenses.

NOTE A.—The cost of loading cinders at ash pits should be charged to account "Enginehouse Expenses—Yard" or account "Enginehouse Expenses—Road."

NOTE B.—The cost of labor putting ballast into track should be charged to account "Roadway and Track."

### 3. TIES.

This account includes cost (including inspection) of cross, switch, and bridge ties, head blocks and railway crossing timbers (plain or treated) for main and repair tracks, sidings, and spurs; in tunnels, stations, shop and other yards; on piers, wharves, track scales, inclines, bridges, trestles, and culverts; to coal chutes, coal pockets, and fuel and water stations (except on inclines to and in fuel stations; on tracks in ballast pits, enginehouses, shops, and storehouses, and on transfer tables and turntables.)

NOTE A.—The cost of labor unloading, distributing and putting ties in track and the expenses of trains distributing ties should be charged to account "Roadway and Track."

NOTE B.—This account may include each month a proportion of the total amount authorized or approximated for renewals during the fiscal year regardless of the month in which the actual renewal is made.

### 4. RAILS.

This account includes cost (including inspection) of rails for main and repair tracks, sidings, and spurs; in tunnels, stations, shop and other yards;

on piers, wharves, track scales, inclines, bridges, trestles, and culverts; in tracks to coal chutes, coal pockets, and fuel and water stations (except on inclines to and in fuel stations, on tracks in ballast pits, enginehouses, shops and storehouses, and on transfertables, turntables, and car floats), less the value of old rails taken up.

NOTE A.—The cost of labor unloading, distributing, and laying rails in track, and the expenses of trains picking up and loading rails taken out of track should be charged to account "Roadway and Track."

NOTE B.—This account may include each month a proportion of the total amount authorized or approximated for renewals during the fiscal year, regardless of the month in which the actual renewal is made.

### 5. OTHER TRACK MATERIAL.

This account includes cost of all track material not chargeable to ballast, ties, and rails; also expenses of repairing track appliances.

The following is a list of the more important articles chargeable to this account:

Anticreepers
Angle bars
Connecting rods
Derails
Frog and guard rail blocking
Frogs
Guard rails (except on bridges and trestles)
Guard-rail clamps
Guard-rail fasteners
Main rods
Nut locks
Nuts
Offset bars
Rail braces
Rail chairs
Rail joints
Splice bars
Stands switch
Step chairs
Switch chairs
Swith crossings rigid or slip
Switch-lamps
Switch locks and keys
Switch points
Switches
Switch-stand bolts
Targets, switch
Tie plates
Tie plugs
Tie rods
Track Bolts
Track spikes.

### 6. ROADWAY AND TRACK.

This account includes:

APPLYING BALLAST.—Pay of employes engaged in preparing roadbed for the reception of ballast; also pay of employes engaged in applying ballast after it has been prepared and unloaded.

APPLYING TIES.—Pay of employes engaged in unloading, distributing, and renewing cross, switch, and bridge ties, head blocks and railway crossing timbers, respacing ties, and burning old ties.

APPLYING RAILS.—Pay of employes engaged in unloading, distributing, cutting, slotting, drilling, and laying rails, adzing for new rails, gathering and loading old rails, and adjusting expansion and contraction.

APPLYING OTHER TRACK MATERIAL.—Pay of employes engaged in applying rail braces, angle bars, rail joints, track bolts and spikes, nut locks, anticreepers, switches, switch stands, frogs, crossing frogs, tie plates, tie plugs, and other miscellaneous track material not specified above.

TRACK MAINTENANCE.—Pay of employes engaged in aligning, surfacing and gaging tracks, placing and removing track shims and tightening bolts and





spikes in tracks. When a track is taken up, the labor expended therefore should be charged to this account, whether another track is laid to replace it or not.

CARE OF ROADBED.—Expenses of constructing and cleaning tile and open ditches; cost and expense of placing and cleaning sewer pipe for drains (cost of sewer pipe laid under tracks should be charged to account "Bridges, Trestles, and Culverts"); cost of material used and labor expended in sloping cuts, blasting rock, widening roadbeds, cuts, fills, and embankments, filling borrow pits, removing slides, dangerous rocks, and other similar obstructions, expenses of operating steam shovels, scrapers, and ditchers while engaged in such work; also expenses of keeping tracks clear and repairing the subgrade of tracks in cases of freshets or washouts and cost of boarding employes so engaged. Cost of labor building temporary tracks around slides and washouts and removing such tracks; cost of replacing rails, ties, and ballast and repairing other damages caused by washouts to tracks proper or to roadbed; cost of cutting, handling, and placing sod; also landscape gardening and beautifying along roadway (except when chargeable to account "Buildings, Fixtures, and Grounds").

GENERAL CLEANING.—Pay of employes engaged in mowing right of way and burning grass and weeds; cost of operating weed burners, removing brush, grass, and drift from right of way, and removing cinders dumped by passing trains, plowing fire guards, removing weeds from and dressing ballast, cutting sod lines, removing dirt from track yards, cleaning streets used as roadways, and loading and handling track scrap.

PATROLLING AND WATCHING.—Pay of track walkers, track watchmen, patrolmen, employes while extinguishing fires on right of way and adjacent property, and watchmen at bad spots in tracks, slides, and dangerous places. (For pay of bridge watchmen see account "Bridges, Trestles, and Culverts," for pay of street crossing watchmen see account "Crossing Flagmen and Gatemen," and for pay of tunnel watchmen see account "Tunnels.")

CHANGING ALIGNMENT AND GRADES.—The proportion chargeable to operating expenses of cost of material used and labor expended in changing the alignment and reducing grades.

BANK PROTECTION.—Cost of material used and labor expended in protecting banks by retaining walls, riprap, piling, piers, dikes, or other means, and in constructing breakwaters, and revetments, and diverting the channels of streams to prevent cutting, washing, or sliding of embankments.

FILLING.—Cost of material used and labor expended in filling bridges, trestles, culverts, and cattle pits.

OTHER EXPENSES.—Cost of material used and labor expended in paving and improving streets used as roadway, and oiling roadbed; payments of assessments for street repairs, sewers, or other public improvements affecting roadway adjacent thereto, not chargeable to account "Buildings, Fixtures, and Grounds"; expenses incident to track inspection, premiums in connection therewith, and any other roadway or track expense not provided for elsewhere.

TRAIN SERVICE.—Pay of work-train enginemen, trainmen, and enginehousemen; cost of fuel, stores, and other supplies for work-train locomo-

tives and cars; cost of oil and wicking used in lanterns of work-train enginemen and trainmen, while such employes and equipment are engaged in work pertaining to roadway and track.

### 7. REMOVAL OF SNOW, SAND AND ICE.

This account includes the cost of removing snow, sand, and ice from tracks; pay of work-train enginemen, trainmen, and enginehousemen, cost of fuel, stores, and other supplies for work-train locomotives and cars; cost of oil and wicking used in lanterns of work-train enginemen and trainmen while such employes and equipment are engaged in clearing tracks and hauling snow; wages paid men employed in shoveling snow and picking ice on tracks, and tools specially furnished them for this purpose, and their meals; fuel and stores used by rotary and other snowplows and other snow and ice clearing appliances, and wages of men employed in operating them; cost of repairing snowplows (other than snowplows cars which are covered by account "Work Equipment—Repairs,") and flangers and the cost of putting them on and removing them from locomotives and cars, and cost of slatting pilots. Wages paid engineers, firemen, and trainmen held in readiness to go out with snowplows; payments for use of land on which to place snow fences, and for salt for keeping switches free from ice and snow. Cost of distributing and setting up portable snow fences and gathering them up and loading, hauling and piling them along the road. (For repairs, see account "Snow and Sand Fences and Snow Sheds.")

### 8. TUNNELS.

This account includes the cost of repairing tunnels, including the cost of timber and other materials, false work, and special tools; pay of tunnel watchmen and cost of supplies used by them; repainting and whitewashing; oil and wicks, and repairs of lamps, lanterns and electric light fixtures used in lighting. This account does not include renewals or repairs to roadway or tracks through tunnels.

### 9. BRIDGES, TRESTLES AND CULVERTS.

This account includes cost of material used (less salvage) and labor expended in repairing and renewing bridges, trestles, culverts (both substructure and superstructure), piers, abutments, masonry, and drainpipes, including repairs made necessary by washouts; retaining walls, riprapping, and dikes necessary to protect or strengthen bridges and culverts against ice, water, or drift; guards on bridges, framing ties for bridges; bridge signs or number boards; expenses of operating and rent of pile drivers and other equipment engaged in repairing and renewing bridges and culverts; cost of cleaning channels under bridges and cleaning culverts, gravel decking for protection against fire, and altering and bracing bridges and trestles during progress of filling.





Cost of removing old bridges in connection with construction of new bridges, and construction and removing temporary or false work used in repairing and renewing bridges and culverts.

Pay of bridge foremen and bridge watchmen, except at drawbridges, and cost of all supplies used by them, such as brooms, lanterns, oil, oil cans, pails, rowboats, tallow, waste, and water barrels, and fuel for heating bridge watchhouses; also repairs to and renewals of stationary engines at drawbridges.

Pay to bridge inspectors and expenses incident to bridge inspection.

Pay of work-train enginemen, trainmen and enginehousemen, and of employes engaged in operating piledrivers; cost of fuel, stores, and other supplies for work-train locomotives and cars, and of oil and wicking used in lanterns of work-train enginemen and trainmen while such employees and equipment are engaged on work pertaining to bridges and culverts.

NOTE A.—Any structure carrying the tracks over other tracks, a stream, highway, or canal should be considered a bridge or a culvert. The cost of maintaining structures carrying other tracks, canals, highways, etc., over a carrier's tracks should be charged to account "Over and Under Grade Crossings."

NOTE B.—This account may include each month a proportion of the total amount authorized or approximated for renewals during the fiscal year regardless of the month in which the actual renewal is made.

NOTE C.—Insurance recovered on bridges, trestles, and culverts should be credited to this account.

### 10. OVER AND UNDER GRADE CROSSINGS.

This account includes cost of material used (less salvage) and labor expended in repairing and renewing overhead bridges and viaducts of all kinds (except station overhead footbridges not public highways), log chutes and rollways erected over the tracks of a carrier, and roadways of undergrade crossings, foot or wagon (except subways not public highways); cost of drainage and excavations for under grade crossings; expenses of opening public roads for purposes of eliminating grade crossings.

### 11. GRADE CROSSINGS, FENCES, CATTLE GUARDS AND SIGNS.

This account includes:

HIGHWAY GRADE CROSSINGS—Cost of material used(less salvage) and labor expended in repairing and renewing street and road (including farm) crossings at grade, crossing drains, crossing gates, crossing signal bells, and batteries with track instruments and connections, and warning signals; cost of water pipes, water and hose for sprinkling grade crossings; and payments of assessments for street repairs or sewers at crossings. (Street repairs or sewers within the limits of shop grounds or immediately adjacent to station buildings should be charged to account "Buildings, Fixtures and Grounds.")

FENCES AND CATTLE GUARDS—Cost of material used (less salvage) and labor expended in repairing and renewing right-of-way fences, cattle guards, wing fences, aprons and hedges.

SIGNS—Cost of yard-limit signs; subdivision boards; mile, section, whistle, water station, water trough, slow, stop, and boundary posts; overhead bridge and tunnel cautions; monument stones, and all other roadway signs.

NOTE.—The cost of station and telegraph signs, fences, and hedges around building sites and shop grounds, and of paving sidewalks, streets, and driveways within the limits of or immediately adjacent thereto, should be charged to account "Building, Fixtures and Grounds."

### 12. SNOW AND SAND FENCES AND SNOWSHEDS.

This account includes all expenses of repairing, renewing, and replacing permanent and portable snow and sand fences (except when the permanent fence takes the place of right-of-way fence, in which case the expense should be charged to the account "Grade Crossings, Fences, Cattle Guards, and Signs"), snowsheds including necessary rock filling and cost of protecting from fire; pay of snowshed watchmen and cost of supplies used by them, cost of planting and caring for trees to protect track from snow.

NOTE.—The cost of distributing and setting up portable snow fence panels, and gathering, loading, hauling, unloading, and piling should be charged to account "Removal of Snow, Sand, and Ice."

### 13. SIGNALS AND INTERLOCKING PLANTS.

This account includes:

INTERLOCKING PLANTS—Cost of material used (less salvage) and labor expended in repairing and renewing the buildings and all appliances of interlocking plants, power interlocking plants, and all machinery such as air compressors, levers, boilers, dynamos, engines, and machinery and fixtures used in connection therewith.

SIGNALS—Cost of material used (less salvage), and labor expended in repairing and renewing block, automatic and semi-automatic signals.

OTHER EXPENSES—Cost of material used (less salvage) and labor expended in repairing and renewing home and distance signals, signal posts, signal bridges, semaphores, train-order signals or order boards, and flag-station signals, gates at crossings of other railways, and all other road or track signals not provided for above, used in the government of the movement of trains, including signal lamps and their connections. Pay of signal engineers and supervisors of signals and their assistants, their office and traveling expenses; also pay of mechanics and laborers and cost of special tools while engaged in repairing and renewing interlocking plants and signals.

NOTE.—This account does not include the cost of maintaining and renewing track material proper required in connection with interlockers, such as switches, special track fastenings, split rails, frogs, etc., which costs should be charged to account "Other Track Material."

### 14. TELEGRAPH AND TELEPHONE LINES.

This account includes:

TELEGRAPH—Cost of material used (less salvage) and labor expended in repairing and renewing telegraph lines owned by a carrier, or for which





it is responsible; also cost of conduits, poles, cross-arms, wire, insulators, cables, cable boxes, instruments, battery jars, switchboards, and all other appurtenances forming a part of the plant. Pay of chief line repairmen, linemen, and other employees, and cost of special tools used by them; also pay, office and traveling expenses of superintendent and assistant superintendent of telegraph, their clerks and attendants.

TELEPHONE—All expenses similar to the above, incurred in connection with telephone lines, and telephone boxes on telegraph and telephone poles.

Pay of work-train enginemen, trainmen and enginehousemen, and other employes, cost of fuel, stores, and other supplies for work-train locomotives and cars, and of oil and wicking used in lanterns for work-train enginemen and trainmen, while such employees and equipment are engaged on work pertaining to telegraph and telephone lines.

NOTE.—The salaries and expenses of superintendents and assistant superintendents of telegraph and their clerks when engaged in both maintaining and operating telegraph and telephone lines should be charged 50 per cent. to account "Telegraph and Telephone Lines" and 50 per cent. to account "Telegraph and Telephone-Operation."

### 15. ELECTRIC POWER TRANSMISSION.

This account includes cost of material used (less salvage) and labor expended in repairing and renewing all appliances for transmitting power from powerhouses and substations to the place where it is to be applied; covers span, guard, feed, and over-head trolley wires, poles, cross-arms, brackets, insulators and connections, third rail, including braces, supports, and devices for insulating, covering or protecting; bonding rails, including connecting plugs, insulating mats, plugs, or other devices; switch-boards, switches, cut-outs, transformers, etc. (except at power and sub-stations), pay of electricians, mechanics and other employees engaged in repairing and renewing electric power transmission lines; also pay of work-train motormen, enginemen, trainmen and enginehousemen and other employees, and cost of fuel, electric current, stores and other supplies for work-train locomotives and cars, and of oil and wicking used in lanterns of work-train enginemen and trainmen while such employees and equipment are engaged on work pertaining to electric power transmission lines.

### 16. BUILDINGS, FIXTURES AND GROUNDS.

This account includes all expenses incident to repairing and renewing buildings owned by a carrier and used in its operations (not otherwise provided for herein) and maintaining driveways and grounds connected therewith, as follows:

BUILDINGS—Cost of material used (less salvage) and labor expended in repairing and renewing buildings and platforms; also station subways and station overhead footbridges not public highways and stairways for approaches to stations; and in painting, glazing, graining, varnishing, papering, calcimining and decorating buildings; signs on buildings; building permits;

cost of land for buildings when chargeable to expenses; removing old structures, and removing snow from roofs of buildings.

The following is a list of the more important structures classified as buildings.:

Air-compressing houses
Baggage rooms
Bins for material
Boarding houses
Breakwaters for protection of buildings.
Buildings and rooms for trainmen
Buildings on piers
Carpenter shops
Carsheds
Coal chutes
Coal chute, engine house
Coal chutes inclines (including tracks thereon)
Coal hoists
Coaling platforms
Dry houses
Dwellings
Eating houses
Elevators
Enginehouses
Express buildings
Fire-engine houses
Foundries
Fuel houses or stations
Gas compressing houses
General offices
Grain cribs
Grain elevators
Grain warehouses
Greenhouses
Hand-car houses
Hayhouses
Hosehouses
Houses for oil and lanterns used by trainmen
Icehouses
Laboratories
Lumber sheds
Mail cranes
Milk stands
Offices
Offices, general
Oilhouses
Outhouses
Planing mills
Platforms, passenger
Platforms, freight
Powerhouses
Powerhouses for electric traction lines
Pumphouses
Reading rooms
Repair shops
Rooms for Y. M. C. A.
Roundhouses
Sandhouses
Scrap bins
Section houses, dwelling
Shops, blacksmith
Shops, car
Shops, machine
Stables
Station platforms
Station signs
Station subways
Station stairways
Stations, freight
Stations, passenger
Stock pens
Storehouses
Switch-tender houses
Tanks, gas
Tanks, oil
Tanks, water
Telegraph offices
Test rooms
Toolhouses
Track scales
Transfer houses
Waiting rooms
Warehouses
Washrooms
Watchhouses
Water stations

FIXTURES—Cost of fixtures (less salvage), such as bunks, counters, file cases, ice chests, railing, shelving, washbowls, water coolers, etc., when immovable and built in as a part of the structure; also cost of repairing and renewing such fixtures.

MACHINERY—Cost of material used (less salvage), and labor expended in repairing and renewing machinery and structures (except tools and machinery chargeable to accounts "Signal and Interlocking Plants," "Shop Machinery and Tools," and "Power Plant Equipment") used in connection with buildings, such as air compressors, armatures and fields, ash buckets, ash hoists, belting, boilers, chutes, cisterns, coal buckets, coal buggies, coal pockets, cranes, derricks, dump cars for fuel plants, dynamos and parts, fire engines, fire extinguishers, fire hose, gas pumps, hoists, hose carts, hose reels, hydrants, hydraulic rams, pipe lines, pumps, sand driers, scales for weighing fuel, screens, shafting, stand pipes, stationary engines, steam pipes, switchboards and parts (except telegraph and telephone), tipples, track tanks, trestles, water troughs, windmills and wood racks.

OTHER EXPENSES—Cost of material used (less salvage) in repairing and renewing transfer tables and turntables, including tracks thereon, cinder pits,





drop pits, tracks in engine-houses, shops and storehouses and on inclines of fuel stations, framework for shafting, foundations for machinery, and stationary scales of all kinds, including foundations, platforms, supports for dead rails, beams, weights, and all fixtures and appurtenances; also the cost of draining scale pits and testing and inspecting scales; expense of protecting pipes, and of drilling, testing, and prospecting for water supply, and payments for permanent water rights.

Cost of material used (less salvage) and labor expended in repairing and renewing stationary fixtures used in connection with heating and lighting buildings; such as arc lamps, chandeliers, electric-light fixtures, electric-light wiring, electroliers, furnaces, gas burners, box lamps at stations, lamps when permanently attached to buildings, pipes radiators and registers.

Cost of repairing and renewing stationary fixtures used for supplying buildings with water, or for draining; water pipes, water closets and washstands; freight and passenger elevators; piping, hydrants and other permanent fixtures for cleaning, heating and lighting cars; ore and coal conveyors; cleaning sewers, framing cross-ties for water troughs, protection against fire, such as water mains and fire plugs; also protecting buildings and grounds against floods and washouts by means of walls and embankments.

GROUNDS—Cost of material used (less salvage) and labor expended in repairing and renewing fences, hedges, walls, sidewalks and streets within the limits of shop grounds, or immediately adjacent to buildings, not provided for elsewhere; fences between tracks at stations; and drive ways and alleys used for receipt or delivery of passengers or freight at stations or in yards; dams, ponds, reservoirs, and wells. Payments of assessments for street repairs, sewers, or other public improvements affecting building sites and shop grounds. Cost of laying out, cleaning (except ordinary cleaning performed by station cleaners), grading, draining, mowing, and beautifying shop and station grounds, and landscape gardening (including cost of plants at such grounds); also cost of trees and shrubs, and of maintaining and operating nurseries. Pay of sub-division foremen, work-train enginemen, trainmen and enginehousemen, and of employees engaged in operating steam shovels, scrapers, pile drivers and ditchers; cost of fuel, stores, and other supplies for work-train locomotives and cars, and oil and wicking used in lanterns of work-train enginemen and trainmen, while such employees and equipment are engaged on work pertaining to buildings and grounds.

NOTE A.—This account may include each month a proportion of the total amount authorized or approximated for renewals during the fiscal year regardless of the month in which actual renewal is made.

NOTE B.—Insurance recovered on buildings, fixtures, and grounds should be credited to this account.

NOTE C.—This account should not include costs of repairing and renewing buildings, fixtures, and grounds, the operations of which are included in "Outside Operations."

17. DOCKS AND WHARVES.

This account includes cost of material used (less salvage) and labor expended in repairing and renewing docks, wharves, piers and other landings,

ferry slips, transfer bridges, pontoons, slips, bulkheads, jetties, and inclines thereto, including filling, strengthening, bracing and painting; expenses of operating pile drivers, tugs, barges and floats while engaged on such work.

Cost of dredging about docks, piers, bulkheads and ferry slips, or for approaches to such properties, and removing material dredged out; expenses of operating dredges, mud scows, barges and floats, and pay of crews, divers and pilots while engaged on such work; cost of crib work, racks, or caissons constructed for preserving the depth of water secured by dredging; cutting ice around docks and wharves to prevent damage; guard and other piling and protection from damage by drift or ice; also pay of supervisors of docks and wharves.

Pay of work-train enginemen, trainmen and enginehousemen, and of employees engaged in operating pile drivers, dredges and tug boats; cost of fuel, stores and other supplies for work-train locomotives and cars, and of oil and wicking used in lanterns of work-train enginemen and trainmen while such employees and equipment are engaged on work pertaining to docks and wharves.

NOTE A.—Cost of maintenance of tracks and buildings on docks and wharves should be charged to other appropriate accounts herein provided.

NOTE B.—This account should not include costs of repairing and renewing docks and wharves the operations of which are included in "Outside Operations."

### 18. ROADWAY TOOLS AND SUPPLIES.

This account includes cost of roadway tools when chargeable to expenses (except tools otherwise provided for) and cost of all material used (less salvage), and labor expended in repairing and renewing all tools, implements, flags and lanterns used in repairing roadway, tracks, interlocking plants and signals, electric traction lines, fences, road crossings, signs, telegraph lines, bridges, culverts, buildings and other structures.

Cost of oil, waste or like material used on hand cars and hand trucks, oil and wicking used in lanterns of track walkers, track watchmen, or patrolmen; ice and oatmeal for drinking water of track repair men; and heating and lighting subdivision tool houses.

The following is a list of the more important roadway tools chargeable to this account:

Adzes
Anvils
Augers
Axes
Ballast forks
Bars, claw
Bars, crow
Bars, lining
Bars, pinch
Bars, raising
Bars, tamping
Braces and bits
Brooms
Brush hooks
Cables
Cable stretchers
Cans, oil
Cans, water
Cant hooks
Cars, hand
Cars, lever
Cars, motor inspection
Cars, push
Chains
Chisels, track
Curbing hooks
Dippers
Drawing knives
Drill bits
Drills
Engines, hoisting
Flags, signals
Furnaces, portable
Grindstones
Hammers, tapping
Hammers, paving
Hammers spiking
Handles, adz
Handels, ax





Handles Hatchet
Handles, maul
Handles pick,
Hatchets,
Hoes,
Hydraulic outfits,
Jack levers,
Jacks, hydraulic,
Jacks, ratchet,
Jacks, screw,
Kegs, water,
Lanterns and fixtures,
Lawn mowers,
Levels,
Lines for ditching,
Lines, tape,
Nippers,
Oilstones,
Padlocks,
Pails, water,
Paint brushes,
Picks, clay,
Picks, tamping,
Pike poles,
Pile drivers, not on cars,
Plows,
Post-hole diggers,
Post-hole tampers,
Punches,
Rail benders,
Rail tongs,
Rail unloaders,
Rakes,
Ratchet drills,
Rock crushers,
Rope,
Saws, crosscut,
Saws, hand,
Scrap boxes,
Scythes,
Shovels,
Shovels, coal,
Shovels, railroad,
Sickles,
Signal lanterns,
Sledges,
Spades,
Spike mauls,
Spike pullers,
Spot boards,
Squares,
Straightening machines,
Stone drills,
Switch ropes (when used in repairing roadway).
Tapelines,
Thermometers for laying rail,
Timber trucks,
Tongs,
Tool boxes,
Torches,
Track gages,
Track jacks,
Track levels,
Velocipedes,
Vises,
Weed spuds,
Wheelbarrows,
Whetstones,
Wood chisels,
Wood mallets,
Wrenches, monkey,
Wrenches, track.

### 19. WORK EQUIPMENT—REPAIRS.

This account includes cost of material used (less salvage) and labor expended in repairing, painting and lettering work or service equipment of all classes (see "Note A" under this account), furniture for cabin or caboose cars, and fixtures for all work or service cars, including cost of renewing same; such as bunks, coal boxes, coal hods, curtains, cushions, lamp fixtures, links and pins, screens, stoves and fixtures; also cost of repairing commercial cars and locomotives when assigned to and in maintenance-of-way service; changes made in such cars to fit them for work service, and refitting them for commercial service; cost of repairing floating equipment used in maintenance or construction of a carrier's property, such as floating pile drivers, dredges, scows, etc.; cost of supervision, cutting up condemned work cars, and repairing cars of foreign lines damaged on the line while in a carrier's work service; material used by car inspectors and car repair men while engaged in inspecting and making light repairs; small hand tools used exclusively in inspecting and repairing work equipment; expenses of fitting cars with devices for special maintenance-of-way work; traveling expenses of employees whose pay is chargeable to this account; payments of royalties or for patent rights on brakes, brake fixtures, and other appliances used on work or service equipment; and payment for cars of foreign lines destroyed on the line while in a carrier's work service; also proportion of shop expenses as provided in Note following account "Other Expenses" under head of "Maintenance of Equipment."

The value of old material released during repairs, insurance recovered, and repayments from other roads should be credited to this account.

NOTE A.—The following equipment is classified as work equipment:

| | | |
|---|---|---|
| Ballast, | Outfit, | Sprinkling, |
| Ballast, unloaded cars, | Painters, | Steam shovels, |
| Boarding, | Pile drivers, | Steam wrecking derricks, |
| Bridge, | Rail saw, | Supply, |
| Camp, | Scale Test, | Sweeper, |
| Cinder, | Snow dozer, | Tool, |
| Derrick, | Snow drag, | Tool and block, |
| Ditching, | Snowplows (not attached | Water, |
| Dump, | to locomotives but | Weed burner, |
| Grading, | moved by them), | Wrecking. |
| Gravel, | | |

NOTE B.—The word "repairs" as here used includes all repairs to or renewals of parts of work equipment commonly known as running repairs; also repairs or renewals of the more important or vital parts of work equipment, the necessity for which is caused by breakage or failure while in service; also the repairs to work equipment, the necessity for which is caused by breakage or failure while in service; also the repairs to work equipment damaged through accident or otherwise necessary to restore to service; and also renewals of important or vital parts made necessary by reason of age or wear and tear from use.

NOTE C.—The cost of repairing work equipment of foreign lines waybilled as freight, damaged in transit should be charged to account "Loss and Damage—Freight," and damage to work equipment of foreign lines having trackage rights over a carrier's lines damaged in collision or wrecks for which a carrier is liable should be charged to account "Damage to Property."

### 20. WORK EQUIPMENT—RENEWALS.

This account includes the original cost (estimated, if not known), record value, or purchase price of all work equipment condemned, destroyed, or sold, less:

(a) Amount previously charged for depreciation up to date of retirement:

(b) Scrap value of salvage or the amount received from sale of work equipment retired.

NOTE.—The term "record value" should not be interpreted to mean the value of equipment as it stands in the capital account, unless that account represents the original value of the equipment on hand.

### 21. WORK EQUIPMENT—DEPRECIATION.

This account includes a monthly charge to one-twelfth (1-12) of a certain per cent. per annum of the original cost (estimated, if not known), record value, or purchase price of work equipment, to provide a fund for replacement when retired.

### 22. INJURIES TO PERSONS.

This account includes all expenses incident to injuries to persons when caused directly in connection with maintenance of way and structures; proportion of salaries and expenses of physicians and surgeons, expenses of undertakers, nursing and hospital attendance, medical and surgical supplies, artificial limbs, funeral expenses, railway and carriage fares for conveying injured persons and attendants; also proportion of pay and expenses of claim adjusters and their clerks, and pay and expenses of employees and others called in consultation in relation to the adjustment of claims coming under this head.





NOTE A.—Witness fees and other expenses in connection with the conduct of suits should be charged to account "Law Expenses," but the amount of final judgments, including plaintiff's court costs, should be charged to this account.

NOTE B.—When contributions are made to hospitals, the total thereof should be distributed to the several "Injuries to Persons" accounts as follows: 25 per cent. to "Maintenance of Way and Structures," 25 per cent. to "Maintenance of Equipment," and 50 per cent. to "Transportation Expenses."

NOTE C.—The pay and expenses of claim adjusters, clerks, chief surgeons, and others whose pay can not be actually allocated to any case should be divided equally between personal injury and other claims over which they have jurisdiction.

## II. MAINTENANCE OF EQUIPMENT.

### 1. SUPERINTENDENCE.

This account includes the same items as maintenance of way and structures.

It also includes the following accounts:

Repairs of steam and electric locomotives.
Renewal of steam and electrical locomotives.
Depreciation of steam and electric locomotives.

### 2. REPAIRS OF PASSENGER TRAIN CARS.

The following cars are classified as passenger train cars:

| | | |
|---|---|---|
| Air-brake instruction, | Dining, | Passenger, |
| Baggage, | Emigrant, | Passenger — baggage — |
| Baggage—express, | Express, | mail, |
| Baggage—mail, | Library, | Pay, |
| Buffet, | Mail, | Postal, |
| Business, | Milk, | Refrigerator—express, |
| Café, | Observation, | Smoking, |
| Chair, | Officers', | Street, |
| Colonist, | Parlor, | Tourist. |
| Combination passenger | Parlor—baggage, | |
| and baggage, | | |

Renewal of passenger train cars.
Depreciation of passenger train cars.

### 3. REPAIRS OF FREIGHT TRAIN CARS.

The following cars are classified as freight train cars:

| | | |
|---|---|---|
| Beer, | Caboose, | Coke, |
| Box, | Charcoal, | Dump (commercial, coal |
| Cabin, | Coal, | or stone,) |

Flat,
Fruit,
Furniture,
Gondola,
Gondola—hopper,
Gondola—long,
Gun trucks,
Hay,
Lime,
Logging,
Oil tanks,
Ore,
Platform,
Poling,
Poultry,
Produce,
Rack,
Refrigerator,
Stock,
Tank and water (when used as commercial cars).

Renewal of freight train cars.
Depreciation of freight train cars.
Repairs of electric equipment of cars.
Renewal of electric equipment of cars.
Depreciation of electric equipment of cars.

### 4. Repairs of Floating Equipment.

This account includes, when not chargeable to "Outside Operations:"

Steamboats and Tugboats—Cost of material used and labor expended in repairing steamships, steamboats, power launches, steam lighters, ferry, transfer, tug, and all other boats propelled by their own power (see "Note A" under this account); also boilers, engines, masts, rigging, sails, wood foundations, bearings for machinery, wheels, rudders, shafts, steering gear, ventilators, electric plants, steam and hot-water fixtures, and all other parts; furniture and fixtures of such boats, including cost of renewing machinery; furniture and fixtures, such as anchors, axes, barometers, beds and bedding, binnacle lamps, block and tackle, capstan bars, carpets, chairs, charts, clocks, compasses, copying presses, counters, desks, engine furnishings, fire buckets, fire extinguishers, flue cleaners, gang planks, hatchets, hooks, keys, lamps (when permanently attached to boats), life-preservers, lines, linoleum, logs and log lines, mats, matting, mattresses, oil cans, pianos on passenger boats, pillows, pokers, racks, railings, rugs, safes, scales, scrapers, settees, shovels, splice bars, spy-glasses, stoves and stove furniture, tables, ticket cases and fixtures, tool boxes, tools, wrenches; payments of royalties, or for patent rights on improved machinery. Pay and expenses of shore engineers, shore captains, and their assistants when engaged in supervising the maintenance of floating equipment.

The value of old material released during repairs and insurance recovered should be credited to this account.

Barges, Car Floats and Canal Boats—Cost of material used and labor expended in repairing barges, canal boats, car and other floats, dredges, lighters and scows (see "Note B" under this account); also hulls, decks, cabins, rigging, and all other parts and furniture and fixtures of such boats, including cost of renewing machinery, furniture, and fixtures, such as those enumerated above.

The value of old material released during repairs and insurance recovered should be credited to this account.

Renewal of floating equipment.
Depreciation of floating equipment.





### 5. Shop Machinery and Tools.

This account includes:

Repairs—Cost of material used, and labor expended in repairing tools and machinery in enginehouses and at locomotive and car shops and foundries, including stationary engines and boilers for furnishing power; scaffolds, shafting, belting, and other appliances for running machinery, cranes, hoists (power and hand), drop tables, jacks and other appliances used in connection therewith; also in repairing furnaces, forges, hydraulic and other portable jacks, portable scales, and sewing machines used in shops. Cost of repairing heating boilers should be charged to account "Buildings, Fixtures and Grounds."

Renewals—Cost of new tools and machinery (less salvage), used in enginehouses and at locomotives and car shops and foundries, including stationary engines and boilers for furnishing power; scaffolds, shafting, belting and other appliances for running machinery, cranes, hoists (power and hand), drop tables, jacks and other appliances used in connection therewith; also furnaces, forges, hydraulic and other portable jacks, portable scales and sewing machines used in shops. Cost of renewing heating boilers should be charged to account "Buildings, Fixtures and Grounds."

### 6. Tower Plant Equipment.

This account includes:

Steam and Water Plant—Cost of materials used (less salvage) and labor expended in repairing and renewing steam and water plant equipment, including engines and engine parts, appliances and fixtures; belts, belt tighteners and fixtures; receivers, lubricators and oiling devices; shafting, clutches, cranes, hoists, and other engine-room appliances, boilers, boiler fittings, and appliances, furnaces, economizers, stacks, mechanical draft machinery, pumps, feed-water heaters, purifiers, tanks, condensers, coal and ash conveying machinery, mechanical stokers and other boiler-room appliances; piping and steam fitting, including valves, separators, water and sewer connections, and water meters.

Electric Plant—Cost of materials used and labor expended in repairing and renewing all electric equipment within the power house (not including the method of transmission of power beyond the power house), including generators and generator parts, dynamos, switch boards, cables, and feeder terminals, and wiring in connection therewith; storage batteries, transformers, boosters, rheostats, circuit breakers, meters, and other electric equipment.

### 7. Injuries to Persons.

When contributions are made to hospitals, the total thereof should be distributed to the several "Injuries to Persons" accounts as follows: 25 per cent. to "Maintenance of Way and Structures," 25 per cent. to "Maintenance of Equipment," and 50 per cent. to "Transportation Expenses."

The pay and expenses of claim adjusters, clerks, chief surgeons, and others whose pay can not be actually allocated to any case should be divided equally between personal injury and other claims over which they have jurisdiction.

### 8. INSURANCE.

### 9. OTHER EXPENSES.

This account includes all expenses in connection with maintenance of equipment not properly chargeable to other maintenance of equipment accounts.

### 10. SHOP EXPENSES.

It is recognized that costs incident to maintenance of equipment other than those enumerated herein not chargeable directly to any particular account provided, will be incurred, such as heating, lighting, water, watchmen, and incidentals. To provide for the distribution of such costs to proper expense accounts, a clearing account called "Shop Expenses" should be opened, to which these items and other unassignable items of expense at shops, engine-houses, repair tracks, and other places at which mechanical work is done should be charged. Such shop expenses should be apportioned among the various accounts affected on the basis of the amount of distributed labor charged to those accounts. The basis of distribution should be the relative proportion which the total amount of charges to "Shop Expenses" bears to the total of the distributed labor.

To avoid monthly fluctuations in the percentage of shop expenses to the total of distributed labor, carriers will be permitted to make the monthly apportionment on the basis of a fixed percentage for the fiscal year, provided the "Shop Expenses" account is adjusted and closed out at the end of that year.

The expenses above referred to are as follows:

HEATING—Cost of fuel, including freight charges and handling, if any, used for heating shops and shop offices, repair tracks, and other places at which mechanical work is done, watchmen's and gate keepers' boxes, and inspectors' shanties.

LIGHTING—Cost of electric current, gas, torches, lamp burners, lamp chimneys, lamps when not permanently attached to buildings, oil, incandescent lamps and carbons, and other material used for lighting shops and shop offices, repair tracks, and other places at which mechanical work is done; and cost of material used and labor expended in operating electric light plants and repairing electric light lamps at shops.

WATER—Cost of water used in shops and shop offices, repair tracks, and other places at which mechanical work is done.

WATCHMEN—Pay of watchmen, gate keepers and policemen at shops, repair tracks, and other places at which mechanical work is done.





INCIDENTALS—Pay of employees while attending fires and fire drills; cost of supplies for test rooms and laboratories incident to shop work, ice for shops, watchmen's uniforms, clocks, and call boxes, removing snow and ice from transfer tables and shop yards; traveling expenses not chargeable to other accounts; cost of cleaning privy vaults; oil, grease, waste, and other material used in lubricating shop machinery and tools; horses and horse keep, and repairing wagons and harness used in connection with shops. Cost of supplies and small hand tools used by mechanics on miscellaneous work and soon worn out, and pay of employees while making, replacing or having charge of same; pay of shop foremen, assistant foremen, clerks, time-keepers, and shop accountants, stationary engineers and firemen, sweepers, cleaners, roustabouts, and other unskilled laborers employed in general work in and about shops and shop grounds; cost of fuel for forges, fuel, stores and supplies; and other undistributed shop expenses; all expenses of switching locomotives, including wages, repairs, fuel, and supplies when exclusively assigned to switching service at shops. (When switching at shops is performed by locomotives in regular switching service, all expenses of such switching should be charged to appropriate "Maintenance" and "Transportation" accounts.)

Maintaining joint equipment at terminals—Dr.
Equipment borrowed—Dr.

Maintaining joint equipment at terminals—Cr.
Equipment loaned—Cr.

### 11. HIRE OF EQUIPMENT.

To this account should be charged monthly:

(1) The gross accruals for the use of equipment of all classes belonging to another carrier or company on a basis of per diem, mileage, or rental.

To it should be credited monthly:

(2) The gross accruals for the use of a carrier's equipment while on the lines of other carriers, companies, or individuals ("Car Service" excepted), either on a basis of per diem, mileage, or rental.

To it should be charged monthly:

(3a) An amount equal to 12 cents per car per day for the number of car-day's a carrier's freight-train cars are on the lines of other carriers or in use by other companies or individuals.

(3b) An amount equal to the portion of the depreciation and repairs charges, accruing against the carrier upon its equipment other than freight-train cars while on the lines of other carriers, or in use by other companies or individuals.

Note—These two debits should invariably equal the monthly credit to "Maintenance of Equipment" under the primary account "Equipment Loaned—Cr."

To it should also be credited monthly:

(4a) An amount equal to 1½ cents per car per day for the number of car days, freight-train cars of other carriers, companies, or individuals are on the lines of the carrier company.

(4b) An amount equal to the portion of the depreciation and repairs charges, accruing against other carriers, companies or individuals, upon their equipment other than freight-train cars while on the lines of the carrier.

## III. TRAFFIC EXPENSES.

### 1. SUPERINTENDENCE.

This account includes pay of officers, pay of clerks and attendants, office and other expenses.

Outside Agencies.
Advertising.
Traffic Associations,
Fast Freight lines,
Industrial and Immigrant Bureaus,
Stationary and Printing,
Insurance,
Other expenses.

## IV. TRANSPORTATION EXPENSES.

Superintendence,
Dispatching trains,
Station employees,
Weighing and car service associations,
Stock-yards and grain elevators,
Coal and ore docks,
Station supplies and expenses,
Yard masters and their clerks,
Yard conductors and brakemen,
Yard switch and signal tenders,
Yard supplies and expenses,
Yard engine men,
Yard engine-house expenses,
Fuel for yard locomotives,
Water for yard locomotives,
Lubricants for yard locomotives,
Other supplies for yard locomotives,
Operating joint yards and terminals—Dr.
Operating joint yards and terminals—Cr.
Motormen,
Road engine-men,





Road engine-house expenses,
Fuel for road locomotives,
Water for road locomotives,
Lubricants for road locomotives,
Other supplies for road locomotives,
Operating power plant,
Purchased power,
Road trainmen.

### 1. ROAD SUPPLIES AND EXPENSES.

This account includes:

CLEANING CARS—Pay of car cleaners; also employees engaged in scrubbing the outside of cars at car-cleaning or station yards; cost of hose for washing cars, steam hose, and fuel for heating water for washing cars, water used for cleaning cars, compressed air for cleaning cushions and car seats, brooms brushes, soap, modoc and other liquids, sponges, and all other material for cleaning and disinfecting cars.

HEATING CARS—Pay of employees engaged in handling coal for heating cars and removing ashes from stoves in cars; stoves and heaters for temporary use in freight cars; cost of hose and loose or movable articles connected with heating plants at stations used for supplying heat to cars; fuel, steam or other heating materials, expenses of boiler plants used for supplying heat to cars at stations and yards.

LIGHTING CARS—Pay of employees engaged in filling and cleaning lamps for lighting cars; cost of supplying or pumping gas into cars and hose used in connection therewith; gas, electric current, oil, candles, wicks, globes, shades, chimneys, and all other supplies used in lighting cars; supplies and fuel for gas-pumping plants, gas-pump engines, gas pumps, carburetors, and filling cans for carburetors.

LUBRICATING CARS—Pay of car oilers; also employees engaged in distributing supplies for lubricating cars; cost of tools, such as packing hooks and irons, dope buckets, oil, grease, waste, wool, and other supplies used in lubricating cars.

ICING AND WATERING CARS—Pay of employees engaged in icing and watering cars; cost of ice, water, and tools, such as buckets, ladders and hose, used in icing and watering cars; also cost of refrigeration when borne by the carrier.

DETOURING TRAINS—Cost of temporary use of tracks of other companies, including the cost of pilot service, on account of wrecks, washouts, landslides, snow blockades, and other defects of tracks, bridges, or tunnels.

OTHER EXPENSES—Pay of attendants' keeping, and cost of supplies furnished bunk rooms for engineers, firemen, and trainmen; contributions to Y. M. C. A. and similar organizations, including pay of superintendents and secretaries of reading rooms; cost of oil and wicking for train signal lamps and for lanterns of trainmen (except work trainmen), waste for cleaning lamps and lanterns, and pay of employees engaged exclusively in cleaning,

trimming and filling them; cost of miscellaneous supplies furnished cars for the purpose of protection against accidents and fires; provisions, supplies, or board for passengers, or feed for live stock on snow-bound trains or trains delayed by accident or by other causes; cost of bedding for stock cars, dunnage, furnished cars, chains for securing loads, temporary grain doors, temporary lining of freight cars for carrying freight otherwise liable to injury, planking cars for shipments of billets and other material, boards for flooring fruit cars, boards and slats to fit box and stock cars for carrying coal, coke, and other freight; safety chains for holding together twin and triple cars; opening ends of cars for shipment of rails and structural material; transferring passengers, express matter, baggage, mail, and freight on account of defective tracks, bridges, or tunnels; premiums on fidelity bonds of trainmen; cost of apparatus for testing sight and hearing of engineers, firemen, and trainmen; uniforms, uniform trimmings, and badges for trainmen; laundry work for cars; also cost of miscellaneous supplies required fully to equip revenue trains for service.

Clearing wrecks,
Telegraph and telephone operation.

### 2. OPERATING FLOATING EQUIPMENT.

This account includes steamboats and tug boats—superintendence and manning; steamboats and tug boats—charters; steamboats and tug boats—incidentals; barges, car floats and canal boats—superintendence and manning; barges, car floats and canal boats—charters; barges, car floats and canal boats—incidentals; fuel; elevators and longshore labor.

Express service,
Stationery and printing,
Insurance,
Other expenses,
Loss and damage—freight,
Loss and damage—baggage,
Damaged property,
Damage to stock on right of way,
Injuries to persons,
Operating joint tracks—Dr.
Operating joint tracks—Cr.

## V. GENERAL EXPENSES.

Salaries and expenses of General Officers.
Salaries and Expenses of Clerks and Attendants.
General office supplies and expenses.
Law expenses.
Insurance.





Relief Department expenses.
Pensions.
Stationery and Printing.
Other expenses.
General administration joint tracks, yards and terminals—Dr.
General administration joint tracks, yards and terminals—Cr.

## STEAM RAILROAD COST ACCOUNTING.

There is no subject of interest to accounts that is receiving so much attention as that of Cost Accounting. The factory manager has long since conceded the necessity of a practical system of accounting for expenditures and ascertaining to a certainty the cost of his product. But has his brother—the railway manager—done as much in this direction? It is the experience of the writer that he has not. He is, of course, interested in knowing just what it costs to run his railroad and just what profit is made, but, as he is very rarely an accountant, the necessity of showing the more minute details of expenditures is not so apparent to him, and for that reason few of the details of expenditure come to his notice. His province—in the matter of operating expenses—seems to be that of "putting it up to" the general superintendent and superintendent of motive power, or mechanical superintendent. These officers have in turn to look to the division superintendent and general store-keeper or auditor of motive power accounts, respectively, for the actual details of operating and maintenance expenditures.

Under date of July 1st, 1907, the Third Revised Issue of the Interstate Commerce Commission's Classification of Operating Expenses became a law in accordance with Section 20 of the "Act to Regulate Commerce." This law provides, however, that railways may keep such "temporary or experimental accounts" as are necessary for their needs. This gives the accounting officer sufficient leeway to construct his system of accounts so as to cover the necessary details.

Under the Classification of Operating Expenses as prescribed by the Interstate Commerce Commission there are five general accounts as follows:

1. Maintenance of Way and Structures.
2. Maintenance of Equipment.
3. Traffic Expenses.
4. Transportation Expenses.
5. General Expenses.

It is the intention of this article to show a method for detailing the various sub-accounts of general account No. 2, Maintenance of Equipment, which is one of the most important of the general accounts.

This account is kept by the mechanical officer or by the general store-keeper or auditor of motive power accounts. As a rule one of the last named officers is held responsible for the accounting of the mechanical department.

The charges to repairs and renewals of locomotives and cars are generally shown more in detail than the charges to other classes of equipment,

and are justified or otherwise by comparison with the work performed by their respective classes. In other words, by reducing the charges to a "cost per mile" basis. This is generally done by means of locomotive "Performance Sheets" or similar form of locomotive and car reports. These reports embrace in addition to repairs and renewals per locomotive, car and "ton" mile, the pounds of coal and pints of various kinds of oil used per "ton" mile and per locomotive mile.

This plan of procedure, however, leaves out of consideration a large item of expense in connection with equipment maintenance, namely, repairs of shop tools and machinery.

In determining costs there are three elements to be considered:

1st. Material.
2nd. Labor.
3d. Expense.

The first of these elements can be determined to a very accurate degree by means of price records which record the prices paid for all classes of material including transportation charges—when material is purchased f. o. b. point of shipment—and also the cost of all repair parts and articles made in the shops for stock.

The second element is determined in a variety of ways, all of which bring the same result, *i. e.*, a correct distribution of each employe's time while engaged directly on the product of the shop. This labor is called "Productive labor," "Direct labor," or "Distributed labor."

The third element is the proverbial "Bone of Contention." It is called by various names, such as "Shop Expense," "Overhead Expense," "Clearing Account," "Expense Burden," etc. It consists of the non-distributable items of expense which—while they be properly charged to any of the standing accounts—are of benefit to them all. The following are a few of the principal items which come under this caption: Wages of shop foremen, shop clerks and accountants, watchmen, yard laborers, etc.; supplies furnished for the use of the above employes; oil and waste used in lubricating shop tools and machinery; light, heat and water furnished shops and many other items of unassigned expense.

It is not so much a question of what items shall be considered "shop expense"—this matter being pretty thoroughly understood—but the manner in which these charges shall be pro-rated is the subject of a great deal of discussion, and it is proper that it should be so, for this account is a large one and generally exceeds the amount of the direct or productive labor charges.

A safe and conservative method of pro-rating expense charges is to base the percentage of distribution on the amount of productive labor, as this practically means a percentage based on the hours charged on each piece of work. It is very evident that the more hours an employe puts in on a job the more benefit the job derives from shop superintendence, supplies, and other shop facilities.

It is manifestly incorrect to pro-rate expense material on the basis of the productive material charge—as is often done. Let us take, for example, a case





which frequently occurs: An article is made of brass or copper and the same article or one similar in shape and size is made of tin or steel. The material used in the brass or copper article costs—let us say—fifty cents while that used in the tin or steel article costs twenty-five cents. Let us assume the shop expense proportion chargeable to material to be 100 per cent. The expense charged on the higher priced article would then be fifty cents, while the lower priced article would receive only twenty-five cents expense charge. The expense of supervision and proportion of cost of running the shop is no greater in one case than in the other, and if the productive labor basis of distribution were employed, the shop expense charge in both cases would be equal.

One of the strongest arguments in favor of the "productive labor" method of pro-rating expense charges is the recommendation of the Interstate Commerce Commission in its Classification of Operating Expenses which reads as follows: "Such shop expense should be apportioned among the various accounts affected on the basis of the amount of distributed labor charged to these accounts. The basis of distribution to be the relative proportion which the total amount of charges to 'shop expense' bears to the total of the distributed labor."

It is sometimes considered desirable to use an average percentage for pro-rating shop expense. This is done by taking an arbitrary percentage and using it throughout the year. The Interstate Commerce Commission provides for this but stipulates that an adjustment must be made at the end of each fiscal year.

This adjustment can be made by opening a "suspense account," debiting the account each month with the amount of actual shop expense incurred and crediting it with the amount charged off. This account can be closed at the end of the year and the balance placed to the debit or credit of the current month's expense.

The advantages of handling shop expense in this manner are that it requires less work and prevents fluctuations in the monthly shop expense charges. This last item is of considerable advantage in making estimates of repairs to equipment.

Form No. 1 is intended to furnish the operating officer with a detailed account of equipment charges with which he may compare the performance and efficiency of the different shops and repair stations under his supervision. It will also enable him to compare the expenses of a certain shop with its own past performances.

In considering this form—as well as Form No. 2—it must be remembered that the divisions of the accounts shown are only representative details and may be supplemented by various others and sub-divided to a very much finer point. Take for example the account "repairs of cars," this classification also includes under "freight cars" the further divisions of "ore," "dump," "ballast," "stock," "poultry," "tank," "rack," "charcoal," "dray," "vehicle" and many other classes of freight equipment. In the same manner "repairs of

## E. J. B. & C. Ry. Co.
### DETAILS OF SHOP EXPENSE

MONTH OF.....19.....

| SHOP OR REPAIR STATION | CHICAGO SHOPS | | | ELGIN SHOPS | | | TOTAL | | |
|---|---|---|---|---|---|---|---|---|---|
| PRODUCTIVE LABOR | | | | | | | | | |
| EXPENSE PERCENTAGES | | | | | | | | | |
| ACCOUNT | SHOP EXPENSE | | | SHOP EXPENSE | | | SHOP EXPENSE | | |
| | LABOR | MAT'L | TOTAL | LABOR | MAT'L | TOTAL | LABOR | MAT'L | TOTAL |
| WAGES OF FOREMEN | | | | | | | | | |
| MACHINE SHOP | | | | | | | | | |
| BOILER SHOP | | | | | | | | | |
| BL'K-SMITH SHOP | | | | | | | | | |
| ROUND HOUSE (PROPORTION) | | | | | | | | | |
| COACH SHOP | | | | | | | | | |
| PATTERN SHOP | | | | | | | | | |
| PAINT SHOP | | | | | | | | | |
| TIN SHOP | | | | | | | | | |
| STAT'Y BOILER PLANT | | | | | | | | | |
| WAGES OF ENGINEER | | | | | | | | | |
| " " FIREMEN | | | | | | | | | |
| " " COAL PASSERS | | | | | | | | | |
| FUEL AND SUPPLIES | | | | | | | | | |
| SHOP TOOLS AND MACHY | | | | | | | | | |
| SMALL HAND TOOLS | | | | | | | | | |
| LUBRICANTS | | | | | | | | | |
| STORES DEPT. WAGES | | | | | | | | | |
| CLERKS AND ACCOUNTANTS | | | | | | | | | |
| WAREHOUSEMEN | | | | | | | | | |
| TRUCKERS AND HANDLERS | | | | | | | | | |
| OIL HOUSE MEN | | | | | | | | | |
| LUMBER HANDLERS | | | | | | | | | |
| MISCELLANEOUS | | | | | | | | | |
| WAGES OF SHOP CRANESMEN | | | | | | | | | |
| " " SWEEPERS | | | | | | | | | |
| " " YARD LABORERS | | | | | | | | | |
| " " WATCHMEN | | | | | | | | | |
| MISC'L'S SHOP SUPPLIES | | | | | | | | | |
| TOTAL | | | | | | | | | |

FORM 2





## E. J. B. & C. Ry Co.
### MAINTENANCE OF EQUIPMENT

MONTH OF.....19.....

| ACCT. NO. | ACCOUNT | CHICAGO SHOPS | | | ELGIN SHOPS | | | TOTAL | | | MILEAGE | COST PER UNIT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LABOR | MAT'L | TOTAL | LABOR | MAT'L | TOTAL | LABOR | MAT'L | TOTAL | | COST | MILES |
| | LOCOMOTIVES | | | | | | | | | | | | |
| | CLASS A. | | | | | | | | | | | | |
| | " A. 1 | | | | | | | | | | | | |
| | " A. 2 | | | | | | | | | | | | |
| | " A. 3 | | | | | | | | | | | | |
| | " B | | | | | | | | | | | | |
| | " A 1 | | | | | | | | | | | | |
| | " C | | | | | | | | | | | | |
| | " C 1 | | | | | | | | | | | | |
| | " C 2 | | | | | | | | | | | | |
| | " D | | | | | | | | | | | | |
| | " D 1 | | | | | | | | | | | | |
| | TOTAL LOCOS | | | | | | | | | | | | |
| | CARS | | | | | | | | | | | | |
| 1 | FREIGHT CARS | | | | | | | | | | | | |
| 2 | BUSINESS CARS | | | | | | | | | | | | |
| 3 | SHOVING CARS | | | | | | | | | | | | |
| 4 | MAIL CARS | | | | | | | | | | | | |
| 5 | BAGGAGE CARS | | | | | | | | | | | | |
| 6 | B M & E CARS | | | | | | | | | | | | |
| 7 | CHAIR CARS | | | | | | | | | | | | |
| 8 | COACHES | | | | | | | | | | | | |
| 9 | WORK CARS | | | | | | | | | | | | |
| | TOTAL CARS | | | | | | | | | | | | |
| | SHOP TOOLS & MACHY | | | | | | | | | | | | |
| 10 | MACHINE SHOP | | | | | | | | | | | | |
| 11 | BOILER SHOP | | | | | | | | | | | | |
| 12 | BLK-SMITH SHOP | | | | | | | | | | | | |
| 13 | ROUND HOUSE | | | | | | | | | | | | |
| 14 | COACH SHOP | | | | | | | | | | | | |
| 15 | PATTERN SHOP | | | | | | | | | | | | |
| 16 | PAINT SHOP | | | | | | | | | | | | |
| 17 | TIN SHOP | | | | | | | | | | | | |
| 18 | STEAM FITTERS | | | | | | | | | | | | |
| 19 | STEAM & WATER PLANT | | | | | | | | | | | | |
| 38 | ELECTRIC PLANT | | | | | | | | | | | | |
| | TOTAL SHOP T & M | | | | | | | | | | | | |
| | TOTAL EQUIPMENT | | | | | | | | | | | | |

FORM

locomotives" can be made to embrace each individual locomotive instead of each class if so desired.

It will be noticed that there is no column provided in form No. 1 for shop expense. It is intended that the shop expense shall be combined with the labor charge and shown as one figure. If for any reason the direct labor charge is desired it can be readily obtained from the shop expense percentage shown on form No. 2.

It is intended that form No. 2 shall furnish the operating officer the complete details of the charges to shop expenses incurred in the various shops in order that he may have an opportunity to check this important account and regulate unnecessary expenditures.

Shop expense charges in total should not be taken as a final basis of comparison as it is often found that while the charges are higher in dollars and cents than in a former period, they are justified by an increased productive labor, so that the final basis of comparison should be the shop expense percentage. This is arrived at by dividing the amount of productive labor, shown at the top of form No. 2, into the amount of shop expense, shown at the bottom of the form.

In compiling these two forms it will be found very convenient to have the forms printed on tracing cloth and the original copy made with India ink. An unlimited number of copies can then be made at very slight expense and additional copies can be made at any time.

One of the difficulties which assails the accountant is the number of apparently unavoidable clerical errors which creep into all calculations. By the use of adding machines, slide rules and other mechanical calculating machines these errors can be greatly reduced, and at the same time the office output is increased.

Railroads appear to be the slowest of all corporations in taking up these machines and the principal excuse given is the plea of excessive cost. How long would these same railroads hesitate in spending many times their cost for a turret lathe or any labor saving tool for shop equipment? Who would think of allowing a workman to file out a wheel-fit or journal for a driving axle? The principle involved is precisely the same. The clerk or accountant can do his work better and faster when assisted by these labor savers.

In conclusion the writer cannot advise too strongly the practice of showing, in all forms of accounting records, every detail or fact that can be of any interest whatever to the manager or operating officer or any fact than can possibly give him a different point of view in considering and comparing expenditures.—*C. D. Rockwood.*

## (902) STOCK (MERCHANDISE).

Inventory. See Stores Records, Perpetual Inventory.





## (903) STOCK (CORPORATION).

### (904) ALLOTMENT OF STOCK.

In large corporations, especially those whose stock is open to public subscription, it is necessary to keep a record of shares applied for and shares allotted, as it frequently happens that applications have to be passed upon and the most desirable ones selected. This is more especially true of very promising mining companies.

In such a case, one of the authorities on Corporation Accounting recommends separate sheets being employed for each letter, and where subscriptions are invited for more than one class of share, the employment of separate application forms, printed on different colored paper, so that the applications and allotment sheets for each class of shares may be easily distinguished. When the allotment is complete the sheets can be bound either in the form of a book or of a binder, in order to make a permanent record.

Appended is an illustration of a record of applications and allotment.

### (905) BONUS.

A donation of stock by a corporation in consideration of services rendered or value received.

### (906) CAPITAL STOCK.

The sum divided into shares, which is raised by mutual subscription of the members of a corporation. It is the sum upon which dividends are expected to be paid. The term is used to indicate the amount of capital which the charter or articles of incorporation provides for, and the value of the property of the corporation; the entire sum agreed to be contributed, whether paid in or not.

### (907) CAPITAL STOCK UNSUBSCRIBED.

See Subscription Stock—Treasury Stock.

### (908) CLANDESTINE STOCK.

A secret issue of stock for the purpose of raising funds which it is not desired to make public. Such issues of stock can sometimes be made for the purpose of defrauding the public, who, when it is offered for sale, imagine it is regular stock and purchase at market price.

Clandestine stock is illegal and enjoys none of the privileges of authorized stock.

### (909) COMMON STOCK.

The ordinary stock of corporations on which dividends are paid from the surplus earned and the holders of which possess no special privileges over any other class of stockholders.

(910) CORPORATION STOCK ACCOUNTING RECORDS.

The records usually required by an authorized corporation are as follows:—

1. Minute Book.
2. Record of By-Laws.
3. Stock Certificate.
4. Stock Certificate Record.
5. Stock Ledger.
6. Transfer Journal.

FIG 2. STOCK LEDGER JAS. L BROWN (E)

| Date Transfer | To whom Transf'd. | No Shares | Am't. | Date Issue | From whom Rec'd. | No Shares | Am't |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

STOCK LEDGER

Name and Address of Subscriber

| 1 Date of Transfer | 2 No. of Transfer | 3 No of old Certificate received | 4 From whom, or To whom Transferred | 5 No of new Certificate issued | 6 Date of Surrender of Certificate | 7 Debit | 8 Credit | 9 Credit Balance | 10 Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

(911) CUMULATIVE PREFERENCE STOCK.

This is stock on which dividends must be paid before the common stockholders receive anything from the profits. If the profits are not sufficient to pay the cumulative preference stockholders, the dividends unpaid constitute a liability of the business which must be paid out of future profits prior to any further distribution.

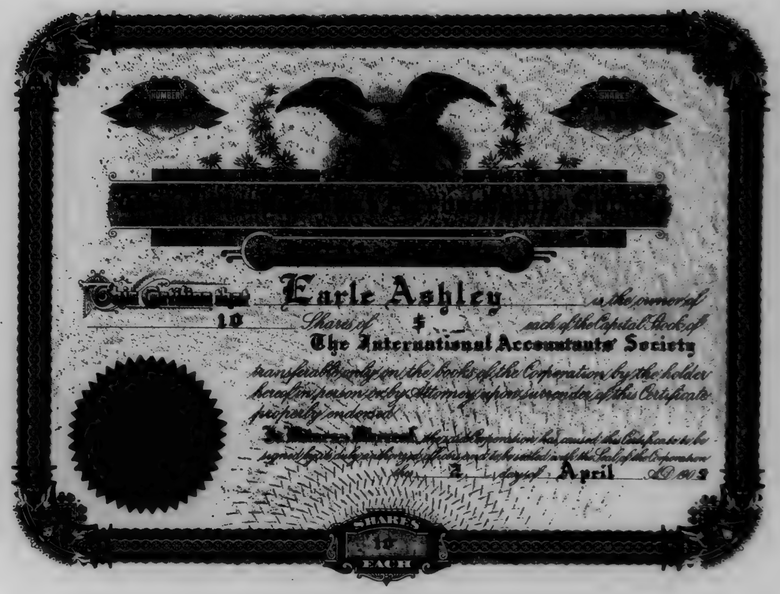
In the case of preference stock which is non-cumulative, dividends not earned in any given year are never paid.

(912) NON-CUMULATIVE PREFERENCE STOCK.

Stock, the holders of which lose any unpaid guaranteed dividends which the earnings of a company were insufficient to pay when payable.








Name
Address

| Date | To No. | No Cert Cancelled | Shares | Date | From No. | No Cert. | Shares | Bal Owned |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Shareholder's Register.

(913) DELINQUENT STOCK.

(914) FORFEITED STOCK.

Stock on which assessments or instalments have not been paid. Forfeited stock is usually carried in the treasury until re-sold.

(915) GUARANTEED STOCK.

Stock on which certain specified dividends are guaranteed to be paid out of the first profits of a company in priority to the rights of all other stockholders. ("Cumulative Stock.")

(916) INSTALLMENT STOCK RECORD.

An account book used for the record of installments due and payable on stock. The usual headings for this book are: Folio, Names of Subscribers, Number of Shares, Amount of Installment, When Paid, Amount Paid, Totals, Remarks.

(917) INSTALLMENT DIVIDEND.

A dividend paid in unissued subscription stock instead of in cash. Equivalent to a stock dividend except that in this case the stock subscribed is payable in instalments.

(918) INSTALLMENT SCRIP.

A form of receipt for instalments received on stock subscribed, the stock itself being held by the corporation until the last installment has been paid.

(919) NON-ASSESSABLE STOCK.

Stock which is only liable to the extent of its par value and is guaranteed not to be assessed for the payment of any future obligations incurred by the company. The legality or actual advantage of such a guarantee is, however, open to question.

(920) PREFERRED STOCK.

(921) PREFERRED STOCK DIVIDEND.

A special stock issued on which a special dividend is guaranteed and which dividends must be paid prior to the holders of common stock receiving any distribution from the profits of an enterprise. Where a business is very prosperous, common stock may be a much more valuable investment than preferred stock, as it may receive larger dividends according to the increase of profits available for distribution, whereas, preferred stock can never receive more than the specified percentage.





(922) REDUCTION OF CAPITAL STOCK.

An expedient sometimes resorted to by corporations for the purpose of wiping out a large deficit arising from losses sustained in the course of business.

(923) SCRIP DIVIDEND.

"A scrip dividend is a dividend of certificates, giving the holder certain rights which are specified in the certificate itself. These dividends are usually declared when the company has profits which are not in the shape of money, but in the other forms of property, and the company wishes to anticipate the time when the property may be sold for cash, and the cash distributed by a money dividend. The certificate sometimes entitles the holder to a sum of money payable with interest at a certain time after date, or at the option of the company, or when the company shall have accumulated sufficient surplus to pay the certificates in full. Sometimes the certificates are made convertible at the option of the holder into bonds or stocks; and sometimes the certificate entitles the holder to exchange the certificate for lands of the corporation to an amount equivalent in value to the face value of the certificate; the latter is a common method adopted by railroad companies holding large land grants, and the title to many western town sites has been acquired in this manner. In issuing such certificates the corporation often reserves the right to redeem them, either at a fixed time or at its option, either in money or bonds or stock. Sometimes the certificate so far partakes of the character of a certificate of stock that it entitles the holder to dividends upon such certificate. Where the corporation, having a large surplus, issues such certificates, they are not held to transfer the title to that surplus from the corporation to the holders of the certificates. In general, the issue of scrip dividends is entirely lawful, and they are upheld by the courts; but when they are declared in fraud of the rights of third parties they may be set aside."

(924) STOCK CERTIFICATE.

New form I. A. S. (See page 1217.)

(925) STOCK CERTIFICATE RECORD.

Next in order is the stock certificate book. When issuing a certificate a careful record should be made upon the stub of the name and address of the stockholder, the number of shares issued, and the number of the certificate, unless this is printed upon the stub, as is generally done. A receipt should be taken from the stockholder at the time the certificate is delivered to him, and this should appear at the bottom of the stub.

(926) STOCK DISCOUNTED.

The sale of corporation stock at less than par in order to obtain working capital.

As an illustration we present a corporation which sells $60,000 worth of stock at a discount of 20%, expending the $48,000 on construction of manufacturing plant.

The following quotations indicate differences of opinion as to the disposition of the discount.

"It is considered permissible to carry stock discount on the books as an asset under the heading of Preliminary Expense to be written off from profits during the first four or five years of the business."

"The discount of $12,000 is a cost item inasmuch as the stock was sold at 20% below par value, a capital loss sustained in order to procure funds to erect the plant."

"The Stock Discount account may be closed into Profit and Loss or Surplus whenever sufficient profits have been accumulated."

"A thing costs us what we pay for it and not what we might have paid under different circumstances. It is proper, therefore, to debit to Construction the discount of 20% rather than carry it on the books in a separate account."

### (927) STOCK DIVIDEND.

"Dividends are frequently paid by certificates of stock where the authorized capital of a corporation has been subscribed but not fully paid up. Such dividends are also paid where the corporate plant has increased in value and it seems better to issue new stock to represent the excess of value than to declare a cash dividend. Preferred stockholders are entitled to share equally with the common stockholders in the distribution of stock by a stock dividend, such stock becoming preferred with the same rights and privileges as the preferred stock originally issued."

### (928) STOCK DONATED.

*For Working Capital.*

If the capital stock of a corporation has not been paid up and the directors vote to donate ten shares each to the corporation to increase the working capital, those directors are responsible for the unpaid balances of the shares of stock so donated.

*For Services.*

See Bonus.

### (929) STOCKHOLDER.

A holder of stock in a corporation.

### (930) STOCK LEDGER OR ACCOUNT BOOK.

The corporation stock ledger is usually considered a memorandum ledger in order to show at any time the amounts subscribed by the stockholders and a record of transfers. A good plan for keeping the corporation stock ledger in balance is to establish accounts with Capital and Treasury Stock, debiting





these accounts with the total stock subscribed and the total stock unsubscribed. Credit the stockholders' account with the amount of stock subscribed and debit them with transfers.

In very large corporations with numerous stockholders special methods are adopted.

### (931) STOCK RECORD.

A Stock Certificate Book.

### (932) STOCK REGISTER AND TRANSFER BOOK.

In large banks where there are many stockholders, a stock register and transfer book will be found useful. In this book is recorded all the certificates of stock issued, giving date of issue, number of certificate, name of stockholder, number of shares and one column for "succeeding number" and one for "preceding number," these last to be used in case of transfer. By this book the location of every certificate of stock, and in fact its history, can be seen at a glance.

As all transfers should be recorded clearly, giving number and name, upon the stub of the stock certificate book, it is from this book that the items are posted to the stock register and transfer book, and to the stock ledger.

### (933) STOCK SUBSCRIPTION.

It is usual, immediately upon organization, to determine by resolution how the stock will be disposed of. If subscriptions thereto are to be taken, the incorporators may decide whether such subscriptions are to be paid at one time, or in instalments, and upon what terms; or they may depute that power to the next board of directors. We will presume that in this instance it is decided that 25 per cent. shall be paid November 1, 1907; 25 per cent. in two months from that date; 25 per cent. four months later; and the remainder when called for by the board of directors; and that business may be commenced when not less than $..... shall have been subscribed.

A subscription list is then opened in form as follows, and we will suppose signatures, etc., to be secured as thereon entered:

| Date. | Name and Address. | No. of Shares. | Amount. |
|---|---|---|---|
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |

We, the undersigned, severally subscribe to the capital stock of the ....., in the amount and for the number of shares set opposite

our respective names, and agree to pay for the same as follows: Twenty-five per cent. November 1, 1907; 25 per cent. January 1, 1908; 25 per cent. May 1, 1908; and the remainder when called for by the board of directors.

### (934) STOCK TRANSFER.

See Stock Register and Transfer Book.
See Stock Ledger.

### (935) SUBSCRIPTION STOCK.

### (936) TREASURY STOCK.

Both titles are used to denote capital stock unsubscribed.

The latter title is also used in connection with stock which has been acquired by a corporation from the original owners, either by way of purchase or donation.

The value of the unissued shares depends upon the price that can be obtained for them and this price depends particularly on the ability of the salesman.

The question as to the title of an account is not important. An account exhibiting unissued shares of stock may be termed Subscription account, Unsubscribed Subscription account or Treasury Stock account. It makes very little difference. At the same time for the sake of uniformity, we would prefer to see Treasury Stock account representing only the buying in of corporation stock by a corporation.

### (937) WATERED STOCK.

That part of capital stock which is not represented by actual assets but by inflated, fictitious or anticipated values.

EXAMPLES.—Patents, copyrights, franchise, promotion expense, advertising, good-will, etc.

### (937A) MARKET VALUE OF CAPITAL STOCK.

PROBLEM.

A corporation with a capital stock of $60,000 closed up its last fiscal year with a surplus of $45,000 and no liabilities.

Of this $45,000, $30,000 consisted of cash and $5,000 of quick available assets.

During the last six years this corporation has declared a dividend of 15 per cent. per annum.





SOLUTIONS.

Assuming that the original cost of the plant, or property, was equal to the par value of the stock when issued, I would say that the balance sheet at the end of the period mentioned should show as follows:

BALANCE SHEET.

| DR. ASSETS. | | |
|---|---|---|
| Cost of Property | 60,000 | |
| Added through Income | 10,000 | |
| | | 70,000.00 |
| Available Assets | | 5,000.00 |
| Cash | | 30,000.00 |
| | | 105,000.00 |
| LIABILITIES. | | CR. |
| Capital Stock | | 60,000.00 |
| Profit and Loss Account—Surplus | | 45,000.00 |
| | | 105,000.00 |

This would show that the business had not only provided for depreciation on the property through the medium of operating expenses, but had paid its 15 per cent. dividend each year for six years and had permitted the accumulation of assets valued at $5,000, added $10,000 to the value of its property, and still had in its treasury $30,000, so that the capital stock of $60,000 represents assets to the value of $105,000. On this basis the stock would be worth to its present holders par $100, plus surplus (45-60 of par) $75, or $175 per share.

If the present holders were to sell the plant valued at $70,000 at that figure, the 600 shares would net $116.66⅔ per share.

The $35,000 in cash and assets would then be divided among the old owners on a basis of $58.33⅓ per share, making net of $175 per share realized. —*E. H. Bell.*

The above question admits of several answers, any one of which would be correct, according to the assumed circumstances.

In any event, an answer indicating the market value of the stock would be subject to criticism, according to the point of view of the critic.

In an open market, the fluctuations attending the sale of stock are caused invariably by the demand, which is occasioned by causes at times that are not in accord with economy or good business judgment. Northern Pacific, for instance, sold at one time for $1,000 a share, yet who will say that the stock was worth that much to the ordinary purchaser?

If your corporation was dissolved at the close of the fiscal year, the intrinsic value of the stock would be 175 per cent. of the par value, assuming that all of the assets were good. This conclusion is obtained from the surplus plus the capital, the company necessarily having good assets to offset these liabilities. I mention the intrinsic value of the stock as being 175, but the market value of the same stock may be more or less, governed only by the conditions of its sale, the parties to the sale, the prevailing rate of money and the vendor and

vendee's idea as to the amount of revenue with which they would be satisfied from their investment.

On the other hand, if the corporation still continued its operations, any and all kinds of conditions may be set forth to justify conclusions arrived at; change in management or policy, the condition of the times, the probable future earning power of the corporation, the existing conditions and rates in the money market, all would have a direct bearing even on the intrinsic value of the stock; and supplementing this conclusion with the fluctuations in the open market we may arrive at a basis for the market value.

Again, if we assume that the corporation will continue indefinitely and earn sufficient to warrant the declaration of an annual dividend of 15 per cent., what basis shall we assume to enable us to determine the market value? D. L. & W., a 20 per cent. dividend stock, sells at 540, while U. P., a 10 per cent. dividend stock, sells at 175, and so on throughout the entire listed securities. Which of these stocks, or any of the others for that matter, can be accepted as the proper basis. Both are considered gilt-edge investments. Even if the prevailing rate for money could unalterably be fixed, how easy it would be to obtain a basis of value, provided no other changes occurred.

Basing calculations on the present average price and approximate yield from investments in conservative industrials, viz., 6 per cent., and conditions remaining the same at the end of the fiscal year as stated, I would say that the market value of the stock should be 250 per cent. of the par value.—*T. J. Walsh.*

We have a total liability of the sum of $60,000 capital and $45,000 surplus, or $105,000.

Supposing the shares are $100 par, we have 600 shares worth $105,000, or $175 per share, this amount being the book value, or the amount the stockholders would receive per share should the corporation go out of business.

Market value differs from par value and book value in that it is affected not only by these two values, but by the dividends paid and by the general aspect of prosperity shown.

A 15 per cent. dividend being paid annually, and a surplus of three-fourths of the amount of capital being established besides, denotes a well-managed corporation, and would tend to raise the market value, or the actual value of shares to investors, above the book value. Ten thousand dollars of the surplus assets being slow assets would tend to keep the market value from going much above the book value.

A 15 per cent. dividend on a $100 share would net $15, but a $15 dividend based on an investment of $175 would be realizing only about 8½ per cent. As stocks of well-managed corporations usually net about 7 or 8 per cent. whether they sell above or below par, I would consider the market value of shares of this corporation to be on approximately an 8 per cent. basis, or having a market value of around $187.50 per share.—*H. K. Lyon.*





### (937B) WHAT IS WATERED STOCK WHEN IT IS NOT SO?

QUESTION—According to a definition given in a current text book, watered stock is "any stock issued by a corporation for which said corporation has not received full value."

If stock is issued at a discount in order to procure Working Capital or pay preliminary expenses, is it watered stock?

If firms have presented small blocks of stock free of charge to valuable employes, is it watered stock?

I know of cases where large corporations have increased their Capital Stock and consequently decreased the percentage of their dividends, being desirous of hiding from the public the amount of money they are making. Would not this increase have to be sanctioned by the Secretary of State? Would it not have to show on the books of the company? If the increase is sanctioned by the Secretary of State, would it not thereby be made public and the fraud disclosed? I understand in a transaction of this kind that the extra stock issued would be given to the present stock-holders either gratis or for a normal consideration.

ANSWER—As in a great many other accounting problems, one solution or definition does not conform with every condition.

In the definition you quote, the idea was the issue of new stock, by a Railroad Company for example, which is sold to the public on the understanding that it is to be used for construction, but which is actually taken possession of by the directors of the Railroad on the ground that the value of future profits justifies it. As you are probably aware there is considerable legislation being attempted with a view of preventing anything of this kind from happening again.

If a corporation issues stock at a discount and carries the full authorized capital on the books and hides the discount under the name of Good Will, Construction Account, or something of that kind, it is watered stock.

If a corporation includes on the asset side of the Balance Sheet, the "Discount on Stock" as a fictitious asset, so that the conditions may be plainly understood, it is not watered stock.

If a corporation donates a few blocks of stock to department heads as payment for valuable services, it is not watered stock.

As you suggest, where the Capital Stock has been increased for the purpose of decreasing dividends, it should be considered fraudulent, because, as a rule, this stock is not distributed in the way of a stock dividend but is held for the benefit of the officers of the company by a resolution of the directors or something of the kind. We do not believe, however, that anything like this often happens.

### (937C) CORPORATION.

"An artificial being created by law and composed of one or more natural persons who subsist as a body politic under a special denomination, with the capacity of perpetual succession of members without changing the identity

of the body, and of acting within the scope of its charters, or the laws under which it is organized, as a natural person."

It is this characteristic of succession of a corporation, sometimes called its immortality, prolonging its existence beyond the term of natural life, and thereby enabling a long-continued effort and concentration of means to the end which it was designed to answer, that constitutes its principal utility.

All corporations, of whatever kind, are moulded and controlled, both as to what they may do and the manner in which they may do it, by their charters or acts of incorporation, which to them are the laws of their being, which they can neither dispense with nor alter. Subject, however, to such limitations as these, or such as general statute or constitutional laws may impose, every corporation aggregate has by virtue of incorporation and as incidental thereto, First, the power of perpetual succession, including the admission, and except in the case of mere stock corporations, the removal for cause of members; Second, the power to sue and be sued, to grant and to receive grants, and to do all acts which it may do at all, in its corporate name; Third, to purchase, receive, and to hold lands and other property, and to transmit them in succession; Fourth, to have a common seal, and to break, alter, and renew it at pleasure; and, Fifth, to make by-laws for its government, so that they be consistent with its charter and with law. Indeed, at this day, it may be laid down as a general rule, that a corporation may, within the limits of its charter or act of incorporation, express or implied, lawfully do all acts and enter into all contracts that a natural person may do or enter into, so that the same be appropriate as means to the end for which the corporation was created.

A corporation may be dissolved, if of limited duration, by the expiration of the term of its existence, fixed by charter or general law; by the loss of all its members, or of an integral part of the corporation, by death or otherwise, if the charter or act of incorporation provide no mode by which such loss may be supplied; by the surrender of its corporate franchise to, and the acceptance of the surrender by, the sovereign authority; and, lastly, by the forfeiture of its charter by the neglect of the duties imposed or abuse of the privileges, conferred by it; the forfeiture being enforced by proper legal process.

In the United States, although the charter of a municipal corporation may be altered or repealed at pleasure, the charter of a quasi public, or a private corporation is, unless express power be for that purpose reserved, within the protection of that clause of the Constitution of the United States which, among other things, forbids a State from passing any "law impairing the obligation of contracts." Under this clause of the Constitution it has been settled that the charter of a quasi public or a private corporation, whether civil or eleemosynary, is an executed contract between the government and the corporation, and that the legislature can not repeal, impair or alter it against the consent or without the default of the corporation, judicially ascertained and declared. On the other hand, the doctrine is firmly established that only that which is granted in clear and explicit terms passes by a grant of property, franchise or privileges in which the government or the public





has an interest. . . . . Statutory grants of that character to be construed strictly in favor of the public, what is not unequivocally granted is withheld, nothing passes by mere implication.

A corporate franchise, however,—as, to build and maintain a toll bridge—may, by virtue of the power of eminent domain, be condemned by a State to public uses, upon just compensation, like any other private property.

Aggregate Corporations are those which are composed of two or more members at the same time.

Civil Corporations are those which are created to facilitate the transaction of business.

Ecclesiastical Corporations are those which are created to secure the public worship of God.

Eleemosynary Corporations are those which are created for the purposes of charities, such as schools, hospitals, and the like.

Lay Corporations are those which exist for secular purposes.

### SOME ADVANTAGES OF INCORPORATING.

Each Stockholder is liable only for the amount of stock subscribed.

A corporation, whenever in need of increase in the working capital can issue debenture bonds, and place same on the public market without giving Chattel Mortgage. Nobody knows what a Trust Deed may include, but a Chattel Mortgage must be registered in a Court of Record, which records are published.

If the management of a company is entrusted to some stockholder, who proves to be inefficient, he may be removed by vote of the majority of the stock, and some one else appointed.

### (937D) ARTICLES OF INCORPORATION.

While any citizens of the United States may enter into a partnership agreement without first consulting the State or Federal laws (excepting, for their own protection, those which cover the proper construction of partnership agreements), a corporation has certain defined legal privileges in regard to limited liability, on account of which the conferring or obtaining of a charter of incorporation has been made a favor to be secured only by complying with certain legal forms and obligations.

Unfortunately the laws governing corporations are not uniform in all the States, this being a reform much to be desired, and some day to be achieved. In order, therefore, to obtain a suitable form of Articles of Incorporation, it is advisable and necessary to consult the local statutes in order to ascertain the State and other requirements, but, as examples, the following may be found useful:

### (937E) ARTICLES OF ASSOCIATION.

OF

.....

We, the undersigned, desiring to become incorporated under the provision of Act No. 232 of the Public Acts of 1885, entitled "An act to revise the laws providing for the incorporation of all manufacturing companies (except such as are contemplated by Act No. 43 of the Session Laws of 1867, which provides for the incorporation of persons, or corporations, engaged in the manufacture of salt), and mercantile companies, or any union of the two, and to fix the duties and liabilities of such corporations," and the acts amendatory thereof and supplementary thereto, do hereby make, execute, and adopt the following articles of association, to-wit:

ARTICLE I.

The name assumed by this association, and by which it shall be known in law, is .....

ARTICLE II.

The purpose, or purposes, of this corporation are as follows:
.....

ARTICLE III.

The operations of this corporation are to be carried on in the County of ....., State of .....

ARTICLE IV.

The capital stock of the corporation hereby organized is the sum of .....dollars.

ARTICLE V.

The number of shares into which the capital stock is divided is ..... ..... of the par value of ten dollars each.

ARTICLE VI.

The amount of said stock actually paid in at the date hereof is the sum of ..... dollars, being ..... per cent. of said capital stock.

ARTICLE VII.

The office in the State of ....., for the transaction of business, shall be kept at .....

ARTICLE VIII.

The term of existence of this corporation is fixed at ....., years from the date hereof.

ARTICLE IX.

The names of the stockholders, their respective residences, and the number of shares of stock subscribed for by each, are as follows:

| NAMES. | RESIDENCE. | NO. OF SHARES. |
|---|---|---|
| ..... | ..... | ..... |
| ..... | ..... | ..... |
| ..... | ..... | ..... |
| ..... | ..... | ..... |





IN WITNESS WHEREOF, We, the parties hereby associating, for the purpose of giving legal effect to these articles, hereunto sign our names, this ..... day of ....., A. D. 19..

| NAMES. | NAMES. |
|---|---|
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |

FORM OF ACKNOWLEDGMENT OF SIGNATURE.

State of ....., County of ....., ss.

On this ..... day of ....., 19...., before me, a ..... in and for said County, personally appeared
.....
.....
.....
known to me to be the persons named in, and who executed the foregoing instrument, and severally acknowledged that they execute the same freely and for the intents and purposes therein mentioned.

.....
.....

Articles of Incorporation of the .....
Registered Office with the .....

NAME.

First. The name of the corporation shall be .....
.....

PRINCIPAL OFFICE.

Second. The location of its principal office in the State of ....., shall be at ....., at ....., in the County of ....., and said Corporation shall be registered with the ..... Trust Company. The said Trust Company is the agent therein, and in charge thereof, and upon whom process against this Corporation may be served.

OBJECTS.

Third. That the objects for which, and for each of which, this Corporation is formed, are:

To manufacture, buy, sell, deal in and deal with steel or iron, or both, and all like or kindred products; to mine, manufacture, prepare for market, market and sell the same, and any articles or product in the manufacture or composition of which metal is a factor, including the acquisition by purchase, mining, manufacture, or otherwise of all materials, supplies, and other articles necessary or convenient for use in connection with and in carrying on the business herein mentioned, or any part thereof.

To build, construct, repair, maintain, and operate water, gas, or electrical works, tunnels, bridges, viaducts, canals, wharves, piers and ..... railroads, and any like works of internal improvement, or public use, or utility.

In furtherance, and not in limitation, of the general powers conferred by the laws of the State of ....., and of the objects and purposes as herein above stated, it is hereby expressly provided that the Company shall have also the following powers, that is to say:

POWERS.

(a) To do any or all of the things herein set forth as objects, purposes, powers or otherwise, to the same extent, and as fully, as natural persons might or could do, and in any part of the world, as principals, agents, contractors, trustees or otherwise.

(b) To conduct its business in all its branches, and have one or more offices, and unlimitedly to hold, purchase, and convey, real and personal property, both within and without the State of ....., and in all other States, Territories, and Colonies of the United States, and in all foreign countries and places.

(c) To manufacture, purchase, or otherwise acquire, hold, own, sell, assign and transfer, invest, trade, deal in and deal with goods, wares, and merchandise and property of every class and description, and to do both mining and manufacturing of any kind.

(d) To purchase, or otherwise acquire, to hold, own, maintain, work, mine, develop, to sell, convey, or otherwise dispose of, without limit as to amount, within or without the State of ....., and in any part of the world, real estate and real property, and any interest and rights therein.

(e) To acquire the good will, rights and property of all kinds, and to undertake the whole or any part of the assets and liabilities of any person, firm, association or corporation, and to pay for the same in cash, stock of this Company, bonds or otherwise.

(f) To apply for, obtain, register, purchase, lease or otherwise acquire, and to hold, own, use, operate, introduce and sell, assign, or otherwise dispose of, any and all trade-marks, trade names, and distinctive marks, and all inventions, improvements and processes used in connection with, or secured under Letters Patent of the United States or elsewhere, or otherwise, and to use, exercise, develop, grant licenses in respect of, or otherwise turn to account, any such trade-marks, patents, licenses, concessions, processes and the like, or any such property, rights, and information so acquired, and with a view to the working and development of the same, to carry on any business, whether mining, manufacturing, or otherwise, which the Corporation may think calculated, directly or indirectly, to effectuate these objects.

(g) To hold, purchase, or otherwise acquire, to sell, assign, transfer, mortgage, pledge or otherwise dispose of shares of the capital stock, bonds, or other evidences of indebtedness created by other corporation, or corporations, and while the holder of such stock, to exercise all the rights and privileges of ownership, including the right to vote thereon, to the same extent as a natural person might or could do.





(h) To purchase, lease, exchange, hire, or otherwise acquire, any and all rights, privileges, permits or franchises suitable or convenient for any of the purposes of its business; to erect and construct, make, improve, or aid or subscribe towards the construction, making and improvement of mills, factories, store-houses, buildings, roads, docks, piers, wharves, houses for employes and others, and works of all kinds; and in conjunction with, and in furtherance of the general business and purposes of the Corporation, as above described, to construct, lease, own, operate, or sell a railroad, or railroads, or both, in any State or country other than the State of ..... subject to the laws of such other State or country, either directly or through the ownership of stock of a corporation formed, or to be formed, for the purpose under the laws of such other State or country.

(i) To guarantee the payment of dividends, or interest on any shares, stocks, debentures, or other securities issued by, or any other contract, or obligation of, any corporation, whenever proper or necessary, for the business of this Corporation in the judgment of its Directors, or the Executive Committee.

(j) To make and enter into contracts of every sort and kind with any individual, firm, association, corporation, private, public, or municipal body politic, and with the Government of the United States, or any State, Territory or Colony thereof.

(k) To do all and everything necessary, suitable or proper for the accomplishment of any of the purposes or attainment of any one or more of the objects herein enumerated, or which shall at any time appear conducive or expedient for the protection or benefit of the Corporation, either as holders of or interested in any property, and in general to carry on any business, whether manufacturing, mining or otherwise.

It is the intention that the objects, purposes and powers specified and clauses contained in this third paragraph shall, except where otherwise expressed in said paragraph, be nowise limited or restricted by reference to, or inference from the terms of any other clauses of this or any other paragraph in this charter, but that the objects, purposes and powers specified in each of the clauses of this paragraph shall be regarded as independent objects, purposes and powers.

CAPITAL STOCK.

Fourth. The total amount of the capital stock of this Corporation is to be ..... divided into .....shares of .....dollars each. Of the said stock ..... shares, amounting at par to ..... are to be preferred stock, and ..... shares, amounting at par to ..... dollars, are to be common stock.

The rights, privileges and conditions following shall attach to the shares aforesaid, that is to say:

(1) The common stock shall be subordinate to the rights of the preferred stock, except that both preferred and common stock shall have equal voting powers.

(2) The Corporation shall not be at liberty without the consent in writing first obtained of the holders of two-thirds in amount of the preferred stock issued and outstanding:

(a) To create or issue any other or further shares ranking in any respect in priority to the aforesaid issue of .....of preference shares.

(b) Nor to create any charge, excepted as herein provided, upon the net profits of the Corporation which shall not be subordinate to the rights of the preference shares.

(c) Not to reserve a surplus fund which shall not be chargeable with the payment of the accrued dividends on the preference shares.

(3) The said preference shares shall carry a fixed cumulative preferential dividend at the rate of, but never exceeding ..... per annum on the par value thereof, and such dividends shall be declared quarterly on the days of ..... in each year, or at such other times as the Board of Directors or the Executive Committee shall see fit and determine.

If in any year dividends amounting to ..... per annum shall not be paid on such preferred stock, the deficiency shall be a charge on the net profits, and be payable, without interest, before any dividends shall be paid upon or set apart for the common stock.

(4) The balance of the net profits of the Corporation, after the payment of said accumulative dividend at the rate of ..... per annum to the holders of the preferred stock, may be distributed as dividends among the holders of the general, or common stock, as and when the Board of Directors or the Executive Committee shall in their discretion determine.

(5) In the event of the liquidation or dissolution of the Corporation, the surplus assets and funds thereof shall be applied in the first place in repaying to the holders of the aforesaid cumulative preference shares the full amount of the principal thereof and the accrued dividends, if any, charged, before any amount shall be paid upon the common stock, and after such payment in full to the holders of said cumulative preference shares, the surplus assets and funds shall belong to and be divided among the holders of the other shares.

From time to time the preferred and common stock may be issued in such amount and proportion as shall be determined by the Board of Directors, in accordance with the laws of the State of .....

DIRECTORS.—CLASSIFICATION.

Fifth. The Directors of the Corporation shall be divided in respect to the time for which they shall severally hold office, into ..... classes, equal in number. The first class shall be elected for a period of .....





years, the second class for a period of ..... years, the third class for a period of ..... years, the fourth class for a period of ..... years, and the fifth class for a period of ..... years, etc., and at each annual election after the successors to the class of Directors whose terms expire in such years, shall be elected to hold office for ..... years, so that the term of office of at least one class shall expire in each year.

In case of an increase in the Board of Directors between the annual election by the stockholders, the newly created Directorship shall be, and be construed as, vacancies until the next annual election to be filled forthwith by the Board.

INCORPORATORS, NAMES AND POST-OFFICE ADDRESS.

Sixth. The names and post-office address of the incorporators, and the number of shares of common stock subscribed for by each, the aggregate of which ..... is the amount of capital stock with which this Corporation will commence business, are as follows:

| NAME. | P. O. ADDRESS. | NO. OF SHARES OF COMMON STOCK. |
|---|---|---|
| ..... | ..... | ..... |

DURATION.

Seventh. The duration of the Corporation is to be perpetual.

REGULATIONS AND LIMITATIONS.

Eighth. (1) The Corporation shall have no power to mortgage its real property, except upon the assent in writing first obtained of the holders of .....of the issued preferred stock hereinbefore described, or upon the affirmative vote of the holders of a majority of the said preferred stock at a meeting of the preferred stockholders duly called for that purpose; and upon such assent so obtained or upon such affirmative vote so had, and not otherwise, the Corporation shall have power to mortgage its real property to secure an issue of bonds or otherwise.

(2) The Board of Directors shall have power without the assent or vote of the stockholders, to make, alter, amend and rescind the by-laws of this Corporation, and, subject always to the payment of the dividends on the preferred stock, to fix the amount to be reserved as working capital.

(3) With the assent in writing, or pursuant to the vote of the holders of two-thirds of all the stock, irrespective of class, issued and outstanding, the Directors shall have power and authority to sell, assign, transfer, convey, or otherwise dispose of the property and assets of this Corporation as an entirety on such terms and conditions, and for such consideration, as the Directors shall deem fit, right and just.

(4) The Board of Directors, and when the Board is not in session, the Executive Committee, in addition to the powers and authorities by statute and by the by-laws expressly conferred upon them, are hereby empowered to exercise all such powers, and to do all such acts and things as may

be exercised or done by the Corporation, but subject, nevertheless, to the provisions of the statute, of the charter, and to any regulations that may from time to time be made by the stockholders; provided that no regulations so made shall invalidate any provisions of this charter, or any prior acts of the Directors or Executive Committee which would have been valid if such regulations had not been made.

(5) There shall be an Executive Committee of ..... members, who shall be elected by the stockholders from the Directors, and hold office as hereinafter provided. The said committee shall have and exercise all the powers expressly conferred upon it by this Article of Incorporation, and also all the powers of the Board of Directors whenever a quorum shall fail to be present at any stated or other meeting of the Board, and as well at all times whenever the Board shall not be in session, and shall have power to affix the seal of the Corporation to all papers which they may deem to require it.

The officers of the committee shall be a ....., a ....., and a ....., who shall hold office during the term of their office as members of the committee, and shall be elected by the stockholders.

At all meetings of the committee all questions shall be decided by a majority of votes, and in case of an equality of votes, the Chairman, and in his absence, the Vice-Chairman, and in the absence of both, the Secretary shall have a second and deciding vote.

The stockholders shall, at their first meeting, elect by ballot the said committee of ..... members, from the Directors elected at such meeting, and shall also elect the said officers thereof.

The stockholders shall determine and fix the compensation to be paid to the members of the committee, and to any of the officers thereof, as such, and the compensation of any member, or officer of the committee, so fixed, shall not be diminished during his tenure.

At every annual meeting, after the first meeting, whenever the term of office of any member or officer of the committee shall expire, the stockholders shall elect a successor. Any member of the committee may be elected to succeed himself.

Any director, irrespective of class, is eligible to election as a member of the Executive Committee.

The term of office of each member of the committee shall be co-extensive with the term of his office as Director, unless the stockholders at the time of his election shall fix a shorter period or term of office, which they shall have power to do. Any member of the committee who shall cease to be a Director of the Company shall *ipso facto* cease to be a member of the committee.

Neither the Directors nor the members of the Executive Committee nor the President nor Vice-President shall be subject to removal during their respective terms of office, nor shall their terms of office be diminished during their tenure.

All vacancies in the Executive Committee shall be filled for the unexpired term from the Directors by the remaining members of the committee.





(6) The Directors shall, from time to time, determine whether, and to what extent, and at what times and places, and under what conditions and regulations, the accounts and books of the corporation, or any of them, shall be open to the inspection of the stockholders, and no stockholder shall have any right to inspect any account, or book, or document of the Corporation except as conferred by statute of or authorized by the Directors.

(7) The Directors shall have power to hold their meetings, to have one or more offices, and to keep the books of the Corporation (except the stock and transfer books) outside of this State, at such places as may from time to time be designated by them.

It should be understood that in the framing of Articles of Incorporation, they should include the name by which the corporation shall be known, the locality where its main offices will be situated, the kind of business which it is organized to transact (being careful under this heading to include everything which may be found necessary as directly concerning or auxiliary to the business to be transacted); the period for which the corporation has been organized (not necessary in all the States); amount of capital stock; how divided and par value of shares; amount of capital stock subscribed and names of subscribers; signatures of subscribers and statutory acknowledgement of signatures.

Care must also be taken in the selection of the name of the corporation, as an imitation of the name of another corporation, especially if in the same line of business, will not be allowed. The names selected should, therefore, be first submitted to the Secretary of State, who will advise whether there will be any objection to their adoption. The variations in State laws are considerable; for instance, in some States, the amount for which a corporation can be capitalized is limited, and the amount of capital stock paid at date of articles must be specified; stock holders must hold shares in a corporation in order to qualify as Directors; the word "limited" must be made a part of the corporation name; a corporation is not permitted to own stock or bonds in any other corporation. A number of these variations will be described under the heading of "Corporation Law."

### (937F) AMENDMENT TO ARTICLES OF INCORPORATION.

While there are generally slight differences in the corporation laws of each State, it may be generally understood that a corporation desiring to amend its Articles of Association, must first secure the assent of two-thirds of the subscribed capital stock and a majority vote of its Board of Directors or Trustees. The by-laws of a corporation usually include a provision that they may only be repealed, or amended, or new by-laws adopted at a special meeting (to be called as provided in the by-laws), or at the annual meeting, such new by-laws to be adopted, or such old by-laws to be repealed or amended only when voted for by a certain majority of stock.

In creating bonded indebtedness, or increasing or reducing capital stock, it is also necessary in some States to file with the Secretary of State, a

certificate reciting the history of the proposed change, and a report of the meeting at which the change was effected. In most States, changes in the Articles of Incorporation can be effected without reference to the State authorities.

The following is an example of the procedure necessary to amend Articles of Incorporation:

*Whereas,* At a meeting of the Board of Directors of the ....., a Corporation, regularly and legally called and held at the office of said Corporation, at the ..... of and ..... of ..... at ..... o'clock, ....., on the ..... day of .....A. D. ....., all of the members of said Board of Directors being present and voting, it was determined by resolution passed and adopted by unanimous vote, duly recorded, to amend the Articles or Certificate of Incorporation of said Corporation, which were heretofore, to-wit, on the ..... day of ....., A. D. ....., filed in the office of the County Clerk of the County of ....., State of ....., and the said Amended Articles, as hereinafter set forth, were read, duly considered and adopted by said Board of Directors of said Corporation:

*Now, Therefore,* These Amended Articles of Incorporation, Witness:

First. That the name of said Corporation is, and shall be.....

Second. That the purposes for which it is formed are:

*(Here insert the original purposes of the corporation.)*

Third. That the place where its principal business is, and is to be, transacted is the Town or ....., in the County of..... State of .....

Fourth. That the terms for which it is to exist is fifty (50) years from and after the date of its original incorporation.

Fifth. That the number of Directors under the original Articles of Association and Certificate of Incorporation was .....; that the names and residences of the Directors who were duly elected as such at the regular annual meeting of this Corporation, held on the ..... day of ....., A. D. ....., serve until the election of their successors, and are as follows, to-wit:

But that the number of Directors is now, and shall be, diminished from.... (....) to ..... (....), and that the following named persons, who are members of the Corporation and duly qualified under the by-laws of the Corporation, to-wit, ....., shall serve as the said ..... Directors from the time of the filing of the copy of these Amended Articles of Incorporation, as provided by law, until their successors shall be elected.

Sixth. The amount of the capital stock of this Corporation is ..... dollars (.....), and the number of shares into which it is divided is ..... (.....) shares, of the par value of ..... dollars (.....) each.

Seventh. That the whole amount of said capital stock, to-wit, ..... (.....) shares, is actually subscribed, and the following are the names of the persons by whom the said capital stock has been subscribed, and is





held, and the amounts subscribed and held respectively by each of them at the date hereof, to-wit:—

IN WITNESS WHEREOF, The undersigned, ....., a Corporation, organized and existing under the laws of the State of ..... having its place of business at ....., in said State, and being a present subscriber and holder of capital stock of said Corporation, has hereunto this ..... day of ....., A. D. ....., caused its name to be subscribed and its corporate seal to be affixed by its President and its Secretary, being hereunto authorized by its Board of Directors by resolution duly passed and adopted; and we, the other undersigned, all of whom are residents of the State of ....., and present subscribers and holders of the capital stock of said Corporation, have hereunto, the said ..... day of ....., set our hands and seals; and the said Corporation and other undersigned, comprising more than two-thirds of all of the holders of the capital stock of said ....., do hereby respectively signify our assent to the Amended Articles of said Incorporation, as hereinabove set forth.

The following is an example of form of Amendment to By-Laws:

*Whereas,* An assent in writing, bearing date ....., signed by the holders of more than two-thirds of the capital stock of this Corporation, consenting to an amendment to the By-Laws, being an amendment to Section ..... of Article ....., relating to ....., and is now on file in the office of this Corporation:

Now, Therefore, Be it

*Resolved,* That the Board of Directors and Secretary of this Corporation certify to said amendment, and the Secretary is hereby directed to copy said amendment, so certified, in the Book of By-Laws immediately following the original By-Laws of this Corporation

## (937G) AGREEMENTS (SUBCRIPTION).

An agreement embodying the terms of subscription to the stock of a corporation. The following is a form of subscription agreement suitable for the organization of a railroad company:

This agreement made and entered into this .....day of ....., A. D., by and between the parties whose names are hereunto subscribed, witnesseth, that,

WHEREAS, it is the purpose of the undersigned to construct a continuous line of railroad to extend ..... from the City and County of ....., or some convenient point on the ..... State of ....., by way of ....., by a convenient and practicable route hereafter to be determined upon, to some point in .....; and, whereas, it is proposed and intended for that purpose to organize under the laws of the State of ..... a Corporation to be called the .....with a capital stock of ..... dollars (.....), for the purpose of

constructing such railroad, so as to insure for the public benefit the existence and operation of a continuous competing line of railroad from the City and County of ..... through the ....., to such a point in the County of .....; and, whereas, the parties hereto, as business men, as shippers and consumers of freight, and as individuals, as citizens of the State of ....., and as property-holders, will be directly and indirectly, jointly and severally, benefited by the construction of said railroad, and by the maintenance and operation of the same as a continuous and competing local line of railroad;

Now, therefore, this agreement witnesseth: That for the purpose of aiding, promoting, and forwarding the construction of said line of railroad, and for maintaining the same as a *bona-fide* competing line, and for and in consideration of the premises, and for the sum of $1.00 by each of the undersigned to the other in hand paid, the receipt whereof is hereby by each acknowledged, the undersigned parties hereto do hereby mutually covenant and agree, and bind themselves unto the other, and each to and with the said proposed Corporation, ....., as follows, to wit:—

I.

Each of the undersigned hereby subscribes the sum set opposite his name to the capital stock of the said proposed Corporation, .....

The subscriptions of the undersigned, and each of them, are made, however, upon the express condition precedent that, unless within ..... days from and after the date hereof, there shall be subscribed to the capital stock of the said ....., sums of money aggregating in all the amount of ....., the subscriptions of the undersigned and each of them shall be null and void; provided, however, that the Executive Committee of the Traffic Association of ..... shall have the power, by vote duly passed and recorded in their minutes, to extend the time within which said amount may be subscribed, but such extension shall not exceed ....., and if the said sum of ..... shall be subscribed within ..... days, or within the time so extended, then these subscriptions shall be in full force and effect.

II.

The undersigned hereby further agree that said proposed Corporation may, for the purpose of convenience, be organized by other persons than the undersigned, or any of them, or by any number less than all of them, and that the Articles of Incorporation of said railroad company need not set forth, in the list of subscribers to its capital stock, all, or any particular one, of the names of, or the amounts subscribed by, the undersigned, and this covenant shall be deemed to have been made expressly for the benefit of said proposed Corporation, and shall be irrevocable; and the subscriptions of the undersigned shall be valid and binding upon the undersigned, and the subscriber shall be liable thereon to the said proposed Corporation, the





....., whether the amount subscribed by the undersigned, and by whom subscribed, be set forth by the Articles of Incorporation of said proposed Corporation or not.

III.

Each of the parties hereto further covenants and agrees to and with the others, and with said proposed Corporation, that the said shares of stock of the said proposed Corporation, and each and all of them, subscribed for by him may be issued in the names of .....Trustees (pledged to maintain the road as a competitive line), who shall be selected as hereinafter provided, and that said Trustees, their survivors or survivor, and successors, shall for the term of .... (....) years after the ..... day of ..... have the exclusive right and power to vote such stock in such manner as the majority of the Trustees shall determine at any and all meetings of the stockholders thereof, and for any and all purposes, and to sign, execute and acknowledge as stockholders any and all documents, papers, written assents, by-laws, or amendments to by-laws, contracts, acts or deeds which, in the opinion of a majority of said Trustees it may be necessary, desirable or expedient to so sign, execute or acknowledge; and the power herein conferred upon the said Trustees by the respective parties hereto is, and shall be irrevocable, for the said term of ..... (.....) years, and shall be deemed to be coupled with an interest in the stock of the respective parties hereto, so held in trust, which interest the said Trustees shall hold for the benefit of all other parties hereto.

And it is further covenanted and agreed that the said ..... Trustees shall be elected by the subscribers to the capital stock whose aggregate subscriptions, in order of time of subscription, shall first amount to the sum of .....; and the said election shall be conducted upon the system of .....

And it is further covenanted and agreed that in the event of a consolidation of the said proposed Corporation with any other corporation, and as often as any consolidation shall be made, it shall be in the discretion of the said Trustees to surrender to such consolidated Corporation the certificates of stock held by them as aforesaid, and receive in exchange therefor new certificates in such consolidated Corporation or corporations, to be held on the same trusts as those herein expressed.

And it is further understood and agreed that the said Trustees shall cause to be issued Trustees certificates for stock, which certificates shall respectively set forth the number of shares of stock in the said Corporation, held in trust for each subscriber or his successor in interest, and shall also specify that the said stock is held subject to the following irrevocable trusts, to wit:—

Said Trustees, their survivors, survivor, successors and successor, shall hold said shares with full power to fill from time to time each and every vacancy in their number upon the joint written nomination of a majority of

the surviving Trustees, approved in writing by the holders of a majority of the Trustees' certificates issued hereunder.

Each new Trustee shall, from and after the filing of said nomination, so approved in the office of the said railroad company, be as fully vested with said trust as if he was one of the original Trustees above named.

Second: Said Trustees above named, their survivors, survivor, successors and successor, shall, as stockholders and owners, vote said shares for all purposes whatsoever, upon every question raised at each and every meeting of said Company, whether annual or special, and at any and all stockholders' elections, as the majority of them shall in their discretion from time to time determine, and shall also sign, execute and acknowledge as stockholders any and all documents, consolidation papers, written assents, by-laws, amendments to by-laws, contracts, acts or deeds which, in the opinion of a majority of said Trustees it may be necessary, desirable or expedient to so sign, execute or acknowledge.

Such Trustees' certificates shall further set forth respectively that the shares represented thereby, are transferable only upon surrender of such certificates by a conveyance in writing signed by the person to whom the same is issued, or his attorney thereunto lawfully authorized and registered in the Trustees' transfer book therefor kept by the parties designated by the Trustees for that purpose, and that every person accepting any transfer thereof declares by so doing that he receives said shares subject to said trust, and that such certificate is not valid until signed by two of said Trustees and registered as aforesaid.

The said certificates shall be transferable by indorsement and registration as above provided, in the same manner as shares of stock ordinarily are.

Shares of stock each may be transferred by the Trustees to, and allowed to stand in the names of the persons selected as Directors of the proposed railroad company to qualify them as such.

And it is further covenanted and agreed that in the event of any consolidation of the said proposed Corporation with any other corporation, after such certificates have been issued, and also in the event of any consolidation of such consolidated Corporation thereafter with any other corporation, then said Trustees shall have the power at any time, by a majority vote, to call in such issued certificates and exchange the same for other Trustees' certificates similar in form, but representing stock in such new or consolidated corporation.

This agreement shall be binding upon the heirs, executors, administrators, successors and assigns of the respective parties hereto, and all parties thereto, and all parties who shall subscribe their names to this agreement, or to other agreements substantially identical herewith, shall be deemed parties to this agreement, and each and every subscriber hereto affixing his name thereby covenants and agrees to and with such parties as subscribe their names to agreements identical or substantially identical herewith, with the same force and effect as if the names of such other parties were hereunto subscribed.





It is further understood that no call shall be made until the amount of .....shall have been subscribed, and subscriptions shall be then payable in installments, extending through....., or more, as the Board of Directors of said proposed Corporation may determine.

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# American Business and Accounting Encyclopedia

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A Standard Reference Book for Accountants and Business Men,
profusely illustrated with hundreds of special
forms and plates

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VOL. VI.

COMPLETE IN SIX VOLUMES

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## (938) STONE QUARRY ACCOUNTING.

There are two general divisions of the granite industry—the monumental and the building trades. This article has to do with a system of cost-keeping employed by a company supplying building stone, mostly on large contracts.

The quarry of the company described is located some 20 miles from the cutting sheds, and connected with the latter by a railroad. This separation of raw material and finishing shops is a common feature with granite concerns in New England, due to the difficulty of securing stone-cutters in out-of-the-way towns such as those in which quarries are usually located. The books used are an inter-leaved purchase journal, containing columns for all the expense and contract accounts, a journal, a cash book, and a loose-leaf ledger. The voucher system is used, but no vouchers are made out until bills are paid. All bills and journal vouchers (except closing entries) are entered, after approval by the proper officials, directly in the purchase journal. Closing entries are made in an ordinary journal, this method being used for convenience of reference, and for the purpose of economizing in the use of the purchase journal.

CALIFORNIA CITY ROCK CO. 190

| Maintenance Yard Dept. | Maintenance—Range No. 4 | | | | | | | | CONSTRUCTION—Machinery | | | | | | | | | | Total Amt. Due | | Less Discount | Less Store % | Net Amt. Due | | DETAILS OF CHARGES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hoist | Engine Room | Conveyor | Elevators | Derricks | Tanking and Piping | Tools and Implements | Teaming | Quarry Machinery | Crushers | Tracks and Cars | Power Plant | Lighting Installation | Miscellaneous | Construction Buildings | Boarding House | | | $ | ¢ | | | $ | ¢ | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

The ledger is divided into five subdivisions:—Capital, Expense, Contract, Sundry, and Accounts Payable and Receivable. The Expense section is further subdivided into Quarry Expense, Administration Expense, Cutting Department Expense, and Draughting Room Expense.

Capital Accounts—
- Capital Stock.
- Real Estate, Good Will and Fixtures.
- Profit and Loss.
- Quarry Buildings.
- Cutting Department Buildings.
- Quarry Machinery, Tools and Fixtures.
- Cutting Department, Tools and Fixtures.
- Horses, Wagons and Harness.
- Farming Tools and Equipment.
- Surplus.

Expense Accounts—
- Quarry Expenses:
  - Q Superintendence.
  - Q Labor (foreman, drillmen and quarrymen).
  - Q Attendant Labor (tool carriers, strippers, etc.).
  - Q Blacksmith Labor.
  - Q Blacksmith Supplies.
  - Q Tools and Supplies.
  - Q Power, Labor and Supplies.
  - Q Machinery Repairs.
  - Q Powder and Fuses.
  - Q Incidental Expense.
  - Q Stable.
  - Transportation to Cutting Department.

THE GRANITE COMPANY

Sheet No. _____ Date _____ Estimate For _____

| No. Pcs. | Description, Sketches & Remarks | | | | | Length | Bed | Rise | Cubic Feet | Cutting Price Unit | Cutting Price Total | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

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FORM 1.

Administration Expenses:
- Officers' Salaries.
- Office Salaries.
- General Expense.
- Stationery and Postage.
- Telegraph and Telephone.
- Traveling Expense.
- Interest, Discount and Exchange.





THE GRANITE COMPANY

Job No. _____
Quarry Schedule No. _____ Sheet No. _____ Date _____
Arranged By _____
YOU MAY QUARRY AND MARK THE FOLLOWING STONE AND SHIP _____

| Marks | Length | Size Bed | Rise | Cube | | Remarks | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

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FORM 2.

ORDER _____ NO. _____
Length _____ Bed _____ Rise _____
Quality _____ Cubic Feet _____
Workmen _____ Total Cost _____
Fg Price _____
Remarks _____
Foreman _____

FORM 3.

Samples and Estimates.
Advertising.
Insurance.
Depreciation of Quarry Plant.
Depreciation of Cutting Plant.

Cutting Department Expenses:
- C. D. Superintendence.
- C. D. Cutters' Labor.
- C. D. Attendant Labor.
- C. D. Blacksmith Labor.
- C. D. Blacksmith Supplies.
- C. D. Cutters' Tools and Supplies.
- C. D. Power Labor and Supplies.
- C. D. Machinery Repairs.
- C. D. Incidental Expenses.
- C. D. Rent of Property.

Draughting Room Expenses:
- D. R. Labor.
- D. R. Supplies and Expense.

Sundry Accounts—
- Cash.
- Quarry Pay Roll.
- Bills and Notes Payable and Receivable.
- Cutting Department Pay Roll.
- Unclaimed Wages.
- Quarry Material and Supplies.
- C. D. Materials and Supplies.
- Farms—Supplies and Expense.

Under the heading of Contract Accounts a separate account is opened for each contract undertaken.

In the draughting room, which is the birthplace of all stone contracts, estimates are prepared on all work to be bid upon, based on the number of cubic feet of stone in the building being estimated, and the cost of cutting same. See Form 1. On small buildings, when sketch plans are furnished in sufficient detail, this estimate is often figured so closely that after a contract is taken, it is possible to pick from the estimate the cost of each stone in the building. The estimate is then finished in the general office by figuring the cost of quarrying the granite, a unit figure being used based on the condition of the quarry and the cost of output as figured from the books. As in all contracting businesses, the peace of mind of the officers of a granite company depends on their being able to ascertain at any time the standing of a given contract. To aid in securing this, the company has made it a rule that all estimates shall be filed with the book-keeper in the following form.

ESTIMATES.

| | |
|---|---|
| Quarry, cubic feet, at cts. | $..... |
| Cutting, cubic feet | ..... |
| Attendant expense | ..... |
| Freight to destination | ..... |
| Hauling at destination | ..... |
| Setting | ..... |
| Profit and Reserve for contingencies | ..... |
| Total contract price | $..... |

The attendant expense, which corresponds in the granite business to the term " factory expense," is figured as a certain percentage on the cutting labor, this percentage also being based on the actual percentage as figured from the books.

A contract secured, setting diagrams are prepared showing each stone in a building, which diagrams are usually submitted to the architect for approval. From these completed setting diagrams quarry schedules are prepared (see Form 2) for a guide to the quarry superintendent in getting out the stone, and serving as his authority for the work. These schedules are made in triplicate, one copy going to the quarry, one to the cutting department, and the third being retained. Daily reports are sent from the quarry to the cutting plant, giving the marks and cube of all stones quarried during the day. At the cutting plant these reports are verified by checking with the copy of the quarry schedule filed in that office, and from these checked reports the book-keeper computes the quarry output for the month. Daily reports are also made in duplicate from the quarry of all shipments of stone, one copy going to the superintendent of the cutting plant and one to the book-keeper. These shipping reports also are checked with the quarry schedule, so that by referring to it a complete history of any stone can be obtained at a glance—when ordered from the quarry, when quarried, when shipped. All records used by this company are designed for filing in loose-leaf binders, which system is essential to any business requiring so much detail.

While the quarry is at work getting out stock of the dimensions called for on the quarry schedule, the draughting department makes a separate





CUTTERS RECORD

Name_____ From_____ To_____

| Order No. | Marks | Commenced Mo. | Commenced Day | Commenced Hr. | Finished Mo. | Finished Day | Finished Hr. | Total Hours | Rate | Cost | Price | Gain | Loss | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |

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FORM 4.

diagram (see Form 3) of each and every stone in the building, using a hektograph wherever possible. These diagrams, after being verified with the setting plans, are delivered to the superintendent of the cutting plant, who distributes to the foremen of the various sheds the diagrams for the stones on each car delivered from the quarry. When the foreman assigns a cutter to a particular stone, he fills in the upper left-hand corner with the name of the workman and the hour at which he commences. On a workman's finishing with a stone the record is completed by inserting the time, and his record on the next diagram issued to him begins with the time of quitting work on the old stone, thus avoiding any lapses in time-keeping.

On the completion of a stone its dimensions and cutting are checked with the sketch on its diagram by the foreman, who signs his name to show that the stone is finished and correct. At the close of each day's work, the foreman fills in the total column on all diagrams completed during the day with the number of hours spent by each cutter engaged on the stone and turns in the diagram to the office, where the superintendent marks the estimated price of the stone, and his clerk figures the actual cost of cutting, enters it on a daily report sheet, and the diagram is filed away.

By means of a card catalog a record is kept of the work of each cutter, (See Form 4.) His diagram losses and gains are charged against him, and this catalog is found of great service to the superintendent in times of slack work or in settling claims for increases in pay. Granite cutters are a most independent class. They are strongly unionized, it being practically impossible for a company doing a large business to maintain an open shop. As the eight-hour day prevails, with practically a $3 minimum wage, it is no small part of the economy of a granite concern to watch its cutting gangs in order that the proportion of cutters unable to do sufficient work to earn the minimum pay shall be kept low enough to enable the company to cut stone inside its estimated figures, which are usually based on the production of an average man. This card catalog and daily report make perhaps the best form of check upon possible loss in this direction.

At the close of each month the book-keeper subdivides the Quarry Expense against the contracts under way on the basis of the number of cubic feet of stock quarried for each contract during the month.

The total cost of all diagrams completed during the month is used as the basis of charging off the cutters' pay against the work in hand. In practice the diagram total rarely equals the amount of the pay rolls, on account of the uncompleted work in the shops, but by averaging the unaccounted-for time this difference is fairly adjusted.

The remainder of the expenses of the cutting department is then subdivided against the contracts on the basis of the amounts of cutter's time charged against each contract during the month. These other expenses go to make up part of the allowance made in estimating under the head of "Attendant Expense." The balance of this figure covers the Administration Expense, which is not subdivided against the various contracts—that method tending to confuse too much the actual cost of doing a particular contract—but are closed out at stated periods against profit and loss.

The granite business is a rare example among the larger industries of the country that has persisted in obsolete methods of accounting, and it was with a desire to work out an effective system of granite cost-keeping that the above method was designed. That it accomplishes the result for which it is planned, viz., giving a true and prompt statement of the condition of the company and of its various contracts, will be seen from the following statement, which, in addition to a detailed balance sheet and profit and loss account, is prepared for each contract within two days after the close of a month.

HARWICH HILL MANOR.

| | Estimate. |
|---|---|
| Quarrying, 20,000 cu. ft. at $1.00 | $ 20,000.00 |
| Cutting | 62,500.00 |
| Attendant Expense | 31,250.00 |
| Freight to Harwich Hill at 20c | 4,000.00 |
| Setting 20,000 cu. ft. at 25 cents | 5,000.00 |
| Profit | 5,000.00 |
| Total contract price | $127,750.00 |

Statement to July 1st, 1908—

| | Cost. | Estimate. |
|---|---|---|
| Quarrying 10,000 cu. ft. | $ 6,800.00 | $10,000.00 |
| Cutting 8,000 cu. ft. | 21,000.35 | 23,580.89 |
| Attendant expense | 7,433.82 | 11,790.45 |
| Freight, 6,000 cu. ft. | 1,170.00 | 1,200.00 |
| Setting 2,513 cu. ft. | 914.32 | 628.25 |
| Profit (based on 1/10 of contract completed) | | 500.00 |
| | $37,318.49 | $47,599.59 |
| | | 37,318.49 |
| Apparent profit to date (Administration Expenses not included) | | $10,281.10 |

—*G. James.*





## (939) STORAGE BUSINESS ACCOUNTING.

The form of Storage Register illustrated is designed to overcome the difficulties experienced in showing the amount of storage earned each month.

### RECEIVING RECORD.

The Receiving Department must necessarily be in charge of a man having a thorough knowledge of the business, and also familiar with the various tricks perpetrated by parties who use warehouse receipts for the purpose of obtaining money from banks and individuals under false pretenses. In receiving canned goods great care must be exercised in the inspection of same. A number of cans must be taken indiscriminately from the cases and opened in order to be sure that the contents of same are in accordance with the specification on the label, or if not labeled, to see that the contents are as specified by the party storing same. Cans that have swelled are immediately removed from the cases as soon as discovered, and the warehouse receipt is issued for the number of dozen cans apparently in good condition.

Perishable goods, after being inspected, are stored in the refrigerating room.

The handling of the business will be greatly facilitated by having the floors divided into suitable spaces or rooms. The first floor should be reserved for perishable goods and goods stored for a short period. The cost of handling the goods must be kept down as low as possible, and much depends on the judgment of the party having charge of this end of the business. For convenience, the spaces on the floors will be numbered, those on the first floor being prefixed "A," on the second floor by "B," etc.

After the goods have been tallied and inspected, an entry is made in the receiving record showing the date, name of party, address, quantity, class and condition of goods stored, and the location of same in the warehouse. A suitable form should be drawn up, the book printed in duplicate and the receipts consecutively numbered, also the copies.

The original is signed by the receiving clerk and handed in at the office, where a warehouse receipt is issued. Each day the receiving tickets must be arranged numerically in the office to insure that none are missing.

### STORAGE REGISTER.

The entries in this book are taken from the counterfoil of the warehouse receipt. The form is self-explanatory and only such remarks will be made as are necessary to explain the method of keeping same. Sufficient space must be set aside in the storage register for large consignments where the deliveries are apt to be numerous. This will save the transferring of items. Entries are to be made in the order in which the warehouse receipts are issued.

### DELIVERIES.

Goods will only be delivered upon presentation of the warehouse receipt and the amount of goods delivered must be indorsed on the back of same.

STORAGE RECEIPT *No.* 21327

## SHANK FURNITURE AND STORAGE COMPANY

No. 339 E. Washington Street and 332 to 336 E. Pearl Street

*Mr.* John Jones — *Indianapolis,* March 17, 1906

*Address* from 1762 Oak Ave. — 5 floor East side, Row B

We have received in our storage houses at 339 E. Washington Street and 332 to 336 E. Pearl Street, for your account and subject to return of this receipt the following described goods, to-wit:

| | |
|---|---|
| 6 dining chairs | 2 dresser mirrors |
| 1 ex. table | 2 wash stands |
| 5 rockers, 1 broken | 3 center stands |
| 1 chiffonier | 2 rolls carpet |
| 1 side board base | 1 bdl. brooms |
| 1 side board mirror | 1 bdl. w. shades |
| 1 china closet | 1 bench wringer |
| 1 buffet | 2 wash tubs and c. |
| 1 book case | 1 box and c. |
| 2 dresser base | 1 barrel and c. |

Transfer $3.00

These goods are stored at owner's risk against loss or damage by fire, rust, leakage, war or insurrection, and acts of God. SHANK FURNITURE AND STORAGE COMPANY, however, obligates itself to use diligence in protecting said property while in its custody. The goods here will be held subject to return of this receipt, but will be delivered to owner on his sworn statement before a notary public in case of loss of receipt, providing all charges for storage at the rate of $2.00 for each month or fractional part are paid.

| Date Received 1903 | | Warehouse Rec't | Name | Address | Description of Property | Location in Warehouse | Monthly Charge per unit | Remarks |
|---|---|---|---|---|---|---|---|---|
| Nov. | 18 | | Atkinson & Co. | Kansas City, Mo. | 198 bbls Apples | A 36 | 15¢ Bbl 1st Mo. | Hauling Charges 9.90 |
| | | | | | | | 12¢ " thereafter | Charged Nov. 20-03 |
| | | | | | | | | Invoice No. T. 62 |
| | | 1 | | | | | | |
| | | 2 | | | | | | |
| | | 3 | | | | | | |

| Deliveries | | | | Storage Earned | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date 1903 | | Number of Packages | Invoice No. | Number of Packs. in Storage | Proportion | November 1903 | | Proportion | December 1903 | | Proportion | January 1904 | | Proportion | February 1904 | | etc | Total Earned Storage | | Audited by |
| Dec | 10 | 35 | 5334 | 198 Nov. 198 Dec. | 2/5 | 11 | 88 | 3/5 | 17 | 82 | 3/5 | 11 | 73 | 3/5 | 8 | 13 | | | | |
| 1904 Jany | 18 | 50 | 5165 | 113 Jan. | | | | 2/5 | 7 | 83 | 2/5 | 5 | 43 | Bal | 2 | 28 | | | | |
| Feby | 15 | 94 | 5307 | 19 Feby | | | | | | | | | | | | | | | | |
| " | 23 | 19 | 5375 | None | | | | | | | | | | | | | | 65 | 10 | B |





STORAGE REGISTER.

A delivery ticket similar in form to the receiving ticket is made out and handed in at the office, the duplicate being retained in the delivery book. The delivery ticket must show the warehouse receipt number so as to save time in the office. The delivery entries are made from the delivery tickets after same have been numerically arranged in order to detect missing tickets. When through with the receiving and delivery tickets same should be filed in folders on the face of which only the warehouse receipt number need be noted. The warehouse receipt must also be filed in the folder as soon as same has been taken up on completion of the final delivery.

NOT NEGOTIABLE

## ATLAS STORAGE COMPANY

2029 to 2035 Market Street

*Philadelphia*

Received from _____

the merchandise described hereon to be held on monthly storage from receipt, (subject to the conditions endorsed hereon) and to be delivered only upon return of this receipt and payment of all charges due.

ATLAS STORAGE COMPANY

*Per* _____

DETAIL INVENTORY OF GOODS ON STORAGE

| | | | |
|---|---|---|---|
| Album. | Chairs Rock., Carpet. | Jar. | Signs. |
| Bathtubs. | Chest of Drawers. | Keg. | Shel. |
| 6 Awnings. | 1 China Closet. | Kettles. | 1 Sofas. |
| 6 Awning Frames. | 1 Chiffonier (cont. unknown). | Lot Kitchen Utensils. | Stands. |
| Axe. | Closet. | Ladders. | Hair Rolls (bundles). |
| 1 Baby Carriage. | Clocks. | Ladders, Step. | Hair Pads. |
| Bags (contents unknown). | Clothes Racks. | Lambrequins. | Store Fixtures. |
| Bales " " | Clothes Hook. | Lamps | Stoves and Pipe. |
| Barrels " " | Clothes Props (bundles). | Lap Boards. | " Gas. |
| 1 Banjo | 1 Clothes Tree. | Lathe. | " Oil. |
| Benches (empty). | Cots. | 1 Lawn Mowers. | Swivel. |
| " (contents unknown). | Couch. | Ledger Frame. | Sweeper. |
| 4 Bath Tubs. | Curtains. | 1 Lodges. | Tables, Ext. and bundle. |
| 3 Bedsteads. | Commodes. | Machinery. | 4 " Library. |
| Bed Slats. (bundles). | Counters. | Marble Slabs. | " Marble Top. |
| 3 Bed Springs. | Cradle. | Mats. | " Ironing. |
| Benches. | Cribs. | 4 Matting (bundles). | 1 " Kitchen. |
| Bicycles. | Cradle. | 4 Mattresses. | " Folding |
| Bird Cage. | Crockery. | Mirrors. | Tabourettes |
| 1 Blacking Box. | Cupboard. | Music Rack. | 2 Tubs. |
| Blackboard. | Curtains. | Music Cabinet. | Tanks. |
| 1 Book Cases (cont. unknown). | 6 Curtain Poles. | Office Furniture. | Towel Racks. |
| Book Shelves. | " Brackets. | Oil Cloth. | Toys. |
| 5 Boxes (contents unknown). | Cupolas. | Organ. | Tree Holder. |
| Bolsters. | Demijohns (cont. unknown). | Oven. | 3 Trunks (contents unknown). |
| Boards, Pie. | 1 Desks. | Packages. | Tray. |
| Boards, Ironing. | Divan. | Pails, cov. (cont. unknown). | Trestles. |
| 1 Butlers. | Doll Furniture. | Pails, empty. | Tripods. |
| Books. | Doors. | Paper Boxes. | Type Writers. |
| Brackets. | Dress Forms. | Pedestal. | Umbrella. |
| Bric-a-brac. | Dressing Tables. | 1 Piano. #61254 | Umbrella Stand. |
| Broom. | Dumb-bells. | Piano Lamp. | Valises (contents unknown). |
| Brushes. | Easels. | " Stool. | Vases. |
| 3 Barrels (contents unknown) | Feather Beds. | " Cover. | Violin. |
| Bundles " " | Figures. | Pictures. | Vise. |
| Buckets and Cans. | Filters. | Pillows. | Wagon. |
| Cabinets. | Fire Screen. | Porch Curtain. | Wallets. |
| Camp Chairs and Stools. | Flags. | Press. | Wall Pocket. |
| 8 Carpets (Bundles). | Flag Poles. | Quilts. | 2 Wardrobes. |
| " Wood (bundles). | Flower Stand. | Rake. | Wash Bundle. |
| Carpet Paper. | Foot Rests. | Refrigerators (cont. unknown) | Washing Machine. |
| Carriage. | Folding Bed. | Rugs. | 3 Wash Stands. |
| Cellar Shelves. | 1 Gas Fixtures. | Sash. | Water Coolers. |
| Cheval Glass. | Gas Oven. | Saw. | Wheel-Hole. |
| Chests (contents unknown) | Group. | Scales. | Wooden Pattern. |
| Chests, Tea, " " | Guitar. | Screen Door. | Work Basket. |
| 5 Chairs, Upholstered. | Guns. | Screens. | Wringers. |
| 2 " Cane Seat | Hall Stands. | Scuttles. | Zinc (rolls). |
| " Wooden. | Hampers. | Settee. | Zinc (sheets). |
| " Carpet. | Hammocks. | Set China. | |
| " Dental. | 1 Hat Racks. | Sewing Machines #18291 | CHARGES. |
| 2 " Folding. | Hobby Horse. | 1 Shades (bundles). | Storage, per month, $5.00 |
| 8 " High. | Hue. | Shovels. | Carting, $5.- |
| 1 " Leather. | Horns. | Shelves. | Packing, $6 |
| 1 " Morris. | Hose. | Shaw-holder. | Insurance, $1500 |
| 2 " Rock, Upholstered. | Ice Cream Freezer. | Rings Gun. | |
| 4 " " Cane Seat. | Image. | 1 Side Board (cont. unknown). | |
| " " Rocker. | Indian Clubs. | Sieve. | |

CALCULATING EARNED STORAGE.

This is the most important feature of warehouse accounting, as these figures show immediately whether the concern is operating at a profit or a loss for the period under consideration. Turning to the entries made on the storage register we will show the process of calculating the earned storage. Under the heading "Number of Packages in Storage" is entered on the first line the total number of barrels stored, 198. November being the first month to earn a portion of the storage on this lot, "Nov." is entered behind the 198 to indicate the fact. These notations are valuable and save time in making up the figures of future months. While it is true that one month's storage is due whether the goods remain a whole month or only one day, yet we cannot anticipate the withdrawal of the goods and must credit the unearned portion calculated at the end of each month to the next succeeding month.

From the illustration we find on calculating the storage as of November 30, 1903, that 198 barrels are in storage at the rate of 15c. per barrel for the first month, or $29.70. From November 18 to 30 is two-fifths of a month, consequently two-fifths of $29.70 or $11.88 is earned for November, and three-fifths or $17.82 is earned for December up to the 18th. The proportion of two-fifths of the monthly charge for the latter portion of the month and three-fifths for the first portion of the succeeding month remains the same in this particular case, no matter what the charge in dollars and cents amounts to. Thirty days to the month are used for these calculations and odd days need not be considered where they cannot be divided into 30 without a remainder. Goods received on the fifth of the month would earn five-sixths of the monthly charge for the current month and one-sixth for the succeeding month, etc.

Continuing the calculations shown on the storage register we find that 35 barrels were delivered on December 10, 1903, within the period covered by the first month, leaving 163 barrels on which to figure as of December 31, 1903; 103 barrels @ 12c = $19.56, of which amount two-fifths, or $7.83, is credited to December, and three-fifths, or $11.73, is a credit to January.

Fifty barrels delivered on January 18, 1904, leave 113 barrels to be figured on as of January 31, 1904; 113 barrels @ 12c = $13.56; two-fifths Cr. to January = $5.43, and three-fifths Cr. to February = $8.13.

Ninety-four barrels delivered on February 15, 1904, leave 19 barrels to be figured on as of February 18, the expiration of the month: 19 barrels @ 12c. = $2.28. As the 19 barrels were delivered on February 23, 1904 the transaction is now closed. Care must be taken not to overlook these closing transactions. The total earned storage is found and entered in the "Total Earned Storage" column.

BILLING GOODS DELIVERED.

Invoices covering the delivery of goods on storage are made from the delivery tickets. The invoices are in duplicate, consecutively numbered, the





original being forwarded to the party storing the goods, and the duplicate retained in the office. Either a binder or a vertical file could be used to advantage for preserving the duplicate invoices.

The invoice numbers must be entered in the storage register, so as to insure all deliveries being charged.

Should the warehouse operate its own teaming, bills for such charges will be made on similar forms except that the letter T will precede the invoice numbers. Notations of teaming charges will be made in the storage register as shown.

CUSTOMERS' LEDGER.

This book will be on the loose-leaf plan. An ordinary ruling showing a balance column will suffice. The account numbers will correspond with the floor spaces, the ledger being subdivided by tabs "A," "B," "C," etc., according to the number of floors. The headings of the accounts will show the name and address of the party, and the warehouse receipt number.

Postings to the customers' ledger are made from the storage and teaming books, the respective totals being charged to the controlling account in the general ledger, crediting storage account and teaming account respectively.

The receipts from storage and teaming must be credited to the respective accounts, the total being credited to the controlling account in the general ledger. The individual items will be posted to the accounts in the customers' ledger.

On completion of the final delivery, the amount of storage charged to the customer is compared with the total of "earned storage" in the storage register, and if same agrees the party making the comparison places his initial in the column "Audited by." Any discrepancy can be immediately found.

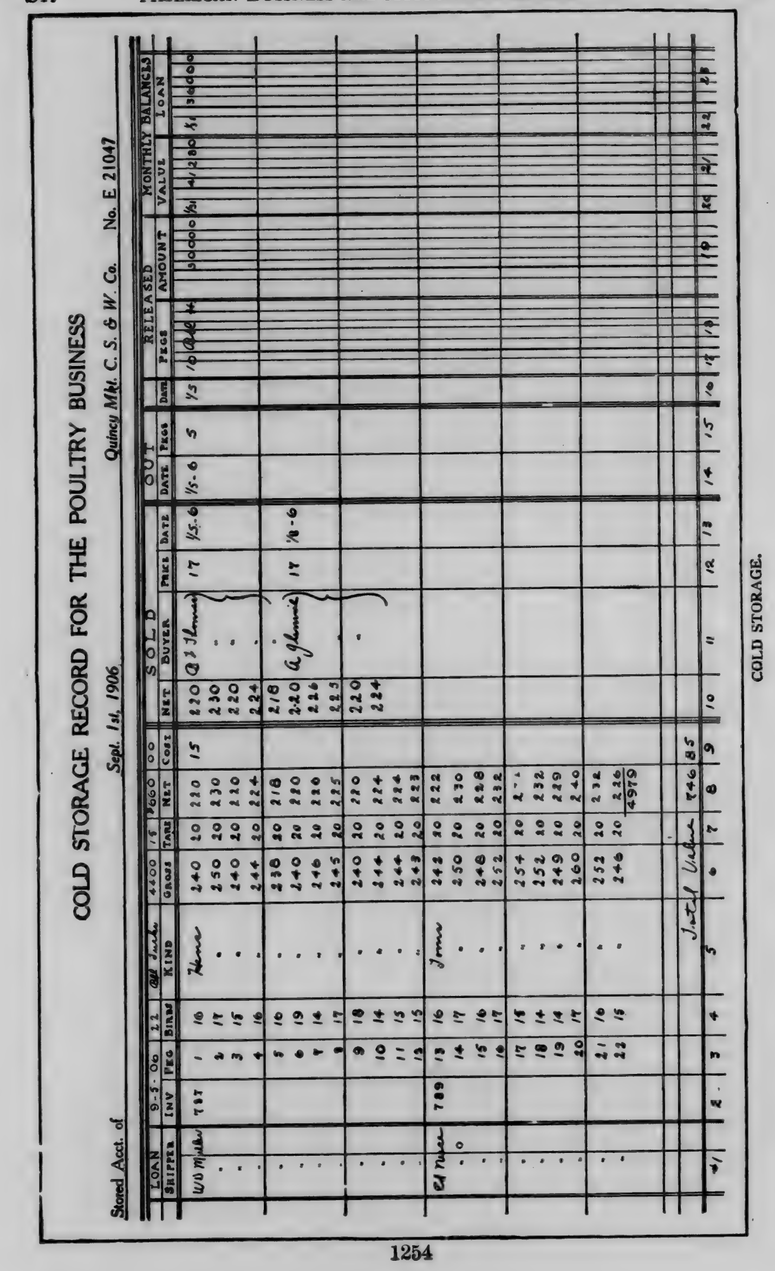
At the end of the month, the "earned storage" is calculated as previously explained, and a journal entry made:

Storage Account

To Earned Storage.

CLOSING THE BOOKS.

After the posting of the items outlined, as well as the sundry expense charges have been made, the books are ready to be closed, and the profit and loss statement made up. Very little time is required to close the books and this should be done each month.



COLD STORAGE RECORD FOR THE POULTRY BUSINESS

Quincy Mkt. C. S. & W. Co. No. E 21047

Stored Acct. of Sept. 1st, 1906.

| LOAN | 9-5-06 | 22 | Old Index | 4200 | 16 | 9660 | 00 | SOLD | | | | | RELEASED | | | MONTHLY BALANCES | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHIPPER | INV. | PEG | BIRDS | KIND | GROSS | TARE | NET | COST | NET | BUYER | PRICE | DATE | PEGS | AMOUNT | VALUE | LOAN |
| W.O. Miller | 787 | 1 | 10 | Fowls | 240 | 20 | 220 | 15 | 220 | Q. J. Johnson | 17 | 1/5 | 10 | 900 | 1/31 | 31000 |
| " | | 2 | 12 | " | 250 | 20 | 230 | | 230 | " | | | | | 2 80 | |
| " | | 3 | 15 | " | 240 | 20 | 220 | | 220 | " | | | | | | |
| " | | 4 | 16 | " | 244 | 20 | 224 | | 224 | " | | | | | | |
| " | | 5 | 10 | " | 238 | 20 | 218 | | 218 | " | | | | | | |
| " | | 6 | 19 | " | 240 | 20 | 220 | | 220 | G. Johnson | 17 | 1/8 | 12 | 1200 | | |
| " | | 7 | 14 | " | 246 | 20 | 226 | | 226 | " | | | | | | |
| " | | 8 | 17 | " | 245 | 20 | 225 | | 225 | " | | | | | | |
| " | | 9 | 18 | " | 240 | 20 | 220 | | 220 | " | | | | | | |
| " | | 10 | 14 | " | 244 | 20 | 224 | | 224 | " | | | | | | |
| " | | 11 | 15 | " | 244 | 20 | 224 | | | | | | | | | |
| " | | 12 | 15 | " | 243 | 20 | 223 | | | | | | | | | |
| Ed Miller | 789 | 13 | 16 | Fowls | 242 | 20 | 222 | | | | | | | | | |
| " | | 14 | 17 | " | 250 | 20 | 230 | | | | | | | | | |
| " | | 15 | 16 | " | 248 | 20 | 228 | | | | | | | | | |
| " | | 16 | 17 | " | 252 | 20 | 232 | | | | | | | | | |
| " | | 17 | 15 | " | 254 | 20 | 234 | | | | | | | | | |
| " | | 18 | 14 | " | 252 | 20 | 232 | | | | | | | | | |
| " | | 19 | 14 | " | 249 | 20 | 229 | | | | | | | | | |
| " | | 20 | 17 | " | 260 | 20 | 240 | | | | | | | | | |
| " | | 21 | 10 | " | 252 | 20 | 232 | | | | | | | | | |
| " | | 22 | 15 | " | 246 | 20 | 226 | | | | | | | | | |
| | | | | | | | 4979 | | | | | | | | | |
| | | | | | | | | | Total Value | | 246 85 | | | | | |
| | | 1 | 2 | 3 | 4 | | 5 | | 6 | 7 | 8 | 9 | 10 | | 11 | 12 |

COLD STORAGE.





PROFIT AND LOSS STATEMENT.

| CHARGES. | CREDITS. |
|---|---|
| Warehouse Expense— | Storage—Earned. |
| Labor. | Teaming. |
| Cartage. | Sale of Goods. |
| Light and Water. | |
| Miscellaneous. | |
| General Expense— | |
| Officers' Salaries. | |
| Office Salaries. | |
| Rent. | |
| Phone. | |
| Stationery and Printing. | |
| Advertising. | |
| Incidentals. | |
| Insurance. | |
| Net Profit. | |

Every book-keeper is familiar with the journal entries for closing the books, which in this case are very simple. The insurance should be pro-rated over a period of twelve months, or at least, each month should bear its share of the amount.

At frequent intervals the goods in storage should be counted as on a certain date, and the balances compared with the amounts in the storage register. This would prevent any of the clerks holding up the delivery ticket and keeping the remittance of a customer. The entering of the invoice numbers in the storage register must be insisted on in order to facilitate the auditing of the accounts.

## (940) COLD STORAGE.

Each package of poultry is identified by a number and sold on its merits; consequently the package number as well as the invoice and storage numbers must follow the package from start to finish on its career.

Loans are negotiated and handled in "round numbers," which necessitates separate balance columns.

If a salesman wishes to show goods of a certain shipper an index of this shipper's invoice numbers will locate them.

Column 4, number of birds, and Column 8, net weight, shows average size of birds in each package.

Footing amount columns under released will show at a glance the balance due the bank on the lot.

Sometimes more goods are released than are taken out the same day; the out column footing compared with the released column footing shows how this may be determined.

(941) STORAGE OF HOUSEHOLD GOODS.

When the goods come in, they are checked by the receiving clerks on the sheets printed in black. The Warehouse Receipt is then made out from this original, and a letter press copy taken, so that if the Warehouse Receipt should be lost, an exact duplicate can at any time be furnished.

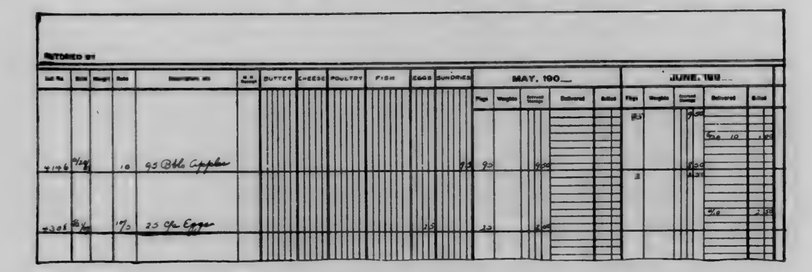
By having the names of all articles of furniture printed on the receipt in alphabetical order, one can see at a glance just what the goods consist of. It also keeps a uniformity about the papers, which is very desirable.

ANOTHER METHOD.

The man in charge of the storage warehouse has a blank book in which he lists each article as it is taken from the wagon and placed on the elevator. After the lot of goods are listed, this book is brought to the office, where a storage receipt in duplicate is made out with typewriter. The storage receipt is given to the owner of the goods, and the duplicate, which is made on back of loose-leaf ledger is kept in office.

When goods are taken out of the warehouse the Storage receipt is turned in to the office and goods are checked out from the receipt, the receipt and ledger page duplicate, are then filed in the transfer binder.

## (942) TABULAR STORAGE RECORD—PROVISIONS.




## (943) STREET RAILWAY ACCOUNTING.

### BALANCE SHEETS OR INDICANT ACCOUNTS.

CAPITAL ACCOUNTS.

CAPITAL DEFINED.—As the term is used herein, by *capital* of a corporation is meant all the property devoted to the rendering of the services or production of the commodities which are within the purposes of the corporation.

FIXED CAPITAL DEFINED.—Capital which has an expectation of life in service of more than one year (exception being made of hand and other small portable tools liable to be lost or stolen) is called *fixed capital.*

FLOATING CAPITAL DEFINED.—Capital other than fixed capital is called *floating capital.*





GENERAL CAPITAL AND DEPARTMENT CAPITAL DEFINED.—Fixed Capital may be sub-divided into General Capital and Departmental Capital. General capital includes all that pertains to the property in general while Departmental capital refers to matters covered exclusively in departmental accounts.

LANDED CAPITAL AND NON-LANDED CAPITAL DEFINED.—Fixed capital is also divisable into landed capital and non-landed capital. *Landed capital* includes all interests in land (exclusive of improvements thereon) the term of which is more than one year. All other fixed capital is herein called *non-landed capital.*

TANGIBLE AND INTANGIBLE CAPITAL DEFINED.—Non-landed capital is divisible into intangible and tangible. *Intangible capital* comprises organization, franchises, patent-rights, and all other intangible property within the definition of fixed non-landed capital as above stated. *Tangible capital* comprises structures and equipment having an expectation of life and service of more than one year. Because of their liability to loss or theft, hand and other small portable tools are excepted from tangible capital, and the cost of such tools when issued is required to be treated as a part of the operating expenses.

FURTHER CLASSIFICATION OF CAPITAL.—Capital is also divisible into original capital, additions, betterments, renewals, and replacements, as defined below. Charges to capital accounts shall show these divisions as set forth under "Particulars of Entries."

ORIGINAL CAPITAL DEFINED.—Original capital is that put into service at the outset of an enterprise.

ADDITIONS DEFINED.—Additions include additional structures, facilities, or equipment not taking the place of anything previously existing.

BETTERMENTS DEFINED.—Betterments include the enlargement or improvement of existing structures, facilities, and equipment.

RENEWALS DEFINED.—Renewals include all extensions of terms of years in land and tangible fixed capital, and all extensions of the life period of franchises and other intangible fixed capital.

REPLACEMENTS DEFINED.—Replacements include all substitutions for capital exhausted or become inadequate in service, the substitutes having substantially no greater capacity than the things for which they were substituted. When a substitute has a greater capacity than that for which it is substituted, the cost of substitution of one of the same capacity as the thing replaced should be charged as a replacement, and the remaining portion of the cost of the actual substitute should be charged as a betterment.

REPAIRS DEFINED.—When through wear and tear or through casualty it becomes necessary to replace some *part* of any structure, facility, or unit of equipment, and the *extent of such replacement does not amount to a substantial change of identity* in such structures, facility, or unit of equipment, the replacement of such part is to be considered a *repair,* and the cost of such repair

is to be treated as an operating expense and must not be charged as a replacement in any capital account.

Hand and other small portable tools liable to be lost or stolen shall, when first acquired and before issued for use, be carried in a suitable Materials and Supplies account; when issued they shall be charged to the appropriate expense account. Portable tools and apparatus of special value may, however, be charged to the appropriate tangible capital account, and remain therein as long as record is kept of the persons to whom such tools and apparatus are issued and such persons are made responsible therefor.

FIRST ENTRIES MUST ENABLE IDENTIFICATION.—Throughout all capital accounts, the first entry in respect of any particular thing shall describe it with such particularity as to enable its identification, and shall give it a distinguishing name, number, or other designation by which it shall thereafter be designated in every entry in any capital account which in any way concerns it. In the case of continuous structures like railroad tracks, or electric line, or pipe line, such structures shall be itemized to the extent that no item shall contain more than one operating division or more than one type of construction, and the entry in relation to any item shall describe the size, weight, type, and other principal physical characteristics of the chief constituent parts, together with their spacing if discontinuous.

COSTS OF NEW CAPITAL TO BE ACTUAL MONEY COSTS.—All charges made to capital or other accounts on or after January 1, 1909, shall be the actual money cost of the things in respect of which they are made. When the consideration actually given for the thing in respect of which a charge to a capital account is made is anything other than money, the actual consideration shall be described in the entry with sufficient fullness and particularity to identify it, and the amount charged shall be the actual money value of such consideration at the time of the transaction.

DISCOUNTS UPON SECURITIES NOT TO BE CHARGED TO CAPITAL ACCOUNTS.—Discounts upon securities and other commercial paper issued in payment for capital are to be provided for in other accounts and must in no case be charged to the capital accounts.

COST OF LABOR, MATERIAL, AND SUPPLIES.—Cost of *labor* includes not only wages, salaries, and fees paid employees, but also such personal expenses of employees as are borne by the corporation. Cost of *materials and supplies* consumed in construction is the cost at the places where they enter into construction, including cost of transportation and inspection when specifically assignable. If such materials and supplies are passed through storehouses, their cost entered in the account may include a suitable proportion of store expense.

WITHDRAWALS OR RETIREMENTS.—When anything is withdrawn or retired from service, the amount at which such thing stood charged in the capital account shall be credited to the capital account in which it stood charged at the time of withdrawal, and the entry of such credit shall cite by name and page of book or other record the original entry of cost of the thing withdrawn. If there is no such original entry, that fact shall be stated in connection with the credit entry, and the actual amount originally charged shall be credited. If





such amount is not known, it shall be estimated, the facts upon which the estimate is based shall be shown, and the amount thus estimated to be the original charge in respect of such thing withdrawn shall be credited.

PARTICULARS REQUIRED TO BE SHOWN IN ENTRIES.—Every charge made to a capital account on or after January 1, 1909, shall show whether the thing in respect of which the charge is made is original capital, or an addition, a betterment, a renewal, or a replacement. If the thing is a betterment, the entry shall designate the thing enlarged or improved and shall cite by name and page of book or other record the original entry of cost of such thing enlarged or improved. If the thing to which any charge hereafter made relates is a renewal or a replacement, the entry made in respect thereof shall designate the thing renewed or replaced and shall cite by name and page of book or other record the orignial entry or entries of cost of such thing renewed or replaced. If there is no entry in the accounts of the corporation showing the cost (to the corporation) of the thing bettered, renewed, or replaced, that fact shall be stated in the entry describing the betterment, renewal, or replacement, and the original cost of such thing to the corporation shall be stated. Such cost shall be estimated if not known, and when estimated the basis of such estimation shall be shown.

BETTERMENTS INVOLVING PARTIAL DESTRUCTION OF THING BETTERED.—If any betterment involves the partial destruction or partial reconstruction of the thing bettered, only such portion of the cost of the change shall be charged as a betterment as will when added to the original cost (estimated if not known) of the thing bettered give the cost of reconstruction or replacement of the thing as bettered, and the remainder of the cost of the change (account being taken of any salvage) shall be charged to the appropriate repair account.

*E. g.*, a building, original cost unknown but estimated to be $15,000, is bettered by the construction of an elevator shaft, and its stairways are modified so as to be fireproof; the actual expenditure for these changes is $3,000; the estimated cost of replacement of the building (as modified) with one equally serviceable and with an equal expectation of life is $16,000; the charge to capital account as a betterment should be $1,000 and the remainder ($2,000) of the expenditure should be charged to the appropriate repairs account.

ROAD AND EQUIPMENT AND OTHER CAPITAL PURCHASED.—When any road or other fixed capital in the form of a going or completed plant is purchased, an appraisal of such capital so acquired shall be made, and the different constituent elements of the road (and equipment, if any) or other capital acquired shall be appraised at their structural value; that is to say at the estimated cost of replacement or reproduction less deterioration to the then existing condition through wear and tear, obsolescence, and inadequacy. If the actual money value of the consideration given for the road or other capital was at the time of the acquisition in excess of such appraised value, the excess shall be charged to the account "Other Intangible Street Railway Capital," and the appraised values of the constituent elements shall be charged to the appropriate accounts as designated in the following definitions of accounts for expenditures for road and equipment and other fixed capital. If the actual money value of the consideration given was not in excess of

such appraised value, such actual money value shall be distributed through the said accounts in proportion to the said appraised value of the constituent elements appropriate to the respective accounts. Full report of the contract of acquisition, the consideration given therefor, the determination of the actual money value of such consideration, the appraisal, and the amounts charged to the respective accounts for each road or other such fixed capital purchased, will be required to be made to the Public Service Commission, and the purchaser will be required to procure in connection with the acquisition of any such road or other fixed capital all existing records, memoranda, and accounts in the possession or control of the grantor relating to the construction and improvement of such road, and to preserve such records, memoranda, and accounts until authorized by law to destroy or otherwise dispose of them.

FIXED CAPITAL.

Right of Way,
Other Street Railroad Land,
Organization,
Franchises (Street Railroad),
Patent-rights (Street Railroad),
Other Intangible Street Railroad Capital,
Grading,
Ballast,
Ties,
Rails, Rail Fastenings and Joints,
Special Work,
Underground Construction,
Track Laying and Surfacing,
Paving,
Roadway Tools,
Tunnels,
Elevated Structures and Foundations,
Bridges, Trestles and Culverts,
Crossings, Fences, and Signs,
Interlocking and Other Signal Apparatus,
Telephone and Telegraph lines,
Poles and Fixtures,
Underground Conduits,
Transmission System,
Distribution System,
Dams, Canals and Pipe Lines,
Power Plant Buildings,
Sub-station Buildings,
General Office Buildings and Equipment,
Shops and Car Houses,
Stations, Waiting Rooms, and Miscellaneous Buildings,
Docks and Wharves,
Park and Resort Properties,





Furnaces, Boilers, and Accessories,
Steam Engines,
Turbines and Water-Wheels,
Gas Power Equipment,
Power Plant Electric Equipment,
Miscellaneous Power Plant Equipment,
Sub-station Equipment,
Cable Power Equipment,
Shop Equipment,
Locomotives,
Revenue Cars,
Electric Equipment of Cars,
Other Rail Equipment,
Miscellaneous Equipment,
Engineering and Superintendence,
Law Expenditures During Construction,
Injuries during Construction,
Taxes during Construction,
Miscellaneous Construction Expenditures,
Interest during Construction,
Land in other Departments,
Franchises in Other Departments,
Patent-rights in Other Departments,
Other Intangible Capital in Other Departments,
Tangible Capital in Other Departments,
Materials and Supplies,
Cash,
Bills Receivable,
Accounts Receivable,
Interest and Dividends Receivable,
Other Current Assets.

INVESTMENTS.

The cost of the corporation's title to any property held as an investment shall be charged to an account entitled "Investments".

NOTE.—In the annual reports to be made to this Commission by the corporations and other persons engaged in street railway operations, investments, whether bound or free, will be required to be classified with at least the following detail:

Bond investments will be required to be divided into three classes: "Mortgaged or Pledged Investments," "Contractual Fund Investments," and "Other Bond Investments." Each of these three classes, and the class "Free investments," will be required to be subdivided into the following: Funded Debt of Controlling Corporations, Funded Debt of Affiliated Corporations, Funded Debt of Controlled Corporations, Stocks of Controlling Corporations, Stocks of Affiliated Corporations, Stocks of Controlled Corporations, Advance to Controlled Corporations, Funded Debt of other Corporations, Stocks of other Corporations, Land, Improvements on Land, and other Investments.

SPECIAL DEPOSITS DEFINED.—By *special deposits*, as here used, are meant amounts of money and bank credits in the hands of fiscal agents of the cor-

poration and others for the payment of coupons, dividends, or other special purposes. Credits at banks subject to check of the corporation or its agents for general purposes, deposits at banks whether withdrawable at pleasure or after a specified time, amounts of money in safety deposit vaults, etc., so long as they are available for general purposes of the corporation, shall be excluded herefrom.

COUPON SPECIAL DEPOSITS.

Charge to this account all moneys and bank credits *specially* deposited in the hands of fiscal agents or other agents of the corporation for the payment of interest coupons when presented. Such coupons when paid from such deposits shall be credited to this account and charged to the appropriate matured interest account. Payments to trustees (or other agents) of the holders of bonds or other securities of the interest accrued thereon which operate under the terms of the securities (or of mortages supporting such securities) as a release of the paying corporation from further liability for such interest shall not be charged to this account, but to the appropriate "Interest Accrued" account.

DIVIDENDS SPECIAL DEPOSITS.

Charge to this account all moneys and bank credits *specially* deposited in the hands of fiscal agents or other agents of the corporation for the payment of dividends upon the corporation's stocks. Such dividends when paid from such deposits shall be credited to this account and charged to the appropriate dividend account.

OTHER SPECIAL DEPOSITS.

Charge to this account all moneys and bank credits deposited in the hands of fiscal agents or other agents of the corporation for other *special* purposes than the payment of interest coupons and dividends. Charges to this account shall specify the purpose for which the deposit is made. When such purposes are satisfied this account shall be credited with the amount specially deposited to provide such satisfaction.

## (944) PREPAYMENTS.

When payments for taxes, insurance, rents and the like are made in advance of the actual accrual thereof, the amount of the advance payment shall be charged to the appropriate account in this group. As such taxes, etc., accrue, the appropriate prepayment account shall be credited and the appropriate expense or other income account shall be charged.

NOTE.—By the accrual of taxes, insurance, rent, etc., is meant their accumulation when considered as spread uniformly over the period to which they apply. Thus: if the rent fixed by contract of lease for a certain property is $600 for a calendar year, this accrues at the rate of $50 each month (unless it is desired to base the accrual on days, when of course the varying lengths of the months would require to be considered), regardless of the actual times when the rent matures; $50 should thus (if the rent has been prepaid) be credited each month to the account, "Prepaid Rents," and concurrently charged to the appropriate account in the "Income" account. Similarly in the case of other prepayments.





PREPAID TAXES.

When taxes are paid in advance of their accrual, the amount prepaid shall be charged to this account. As the taxes thus prepaid accrue they shall be credited at monthly intervals to this account and charged to the appropriate taxes account. This account must not include any so called taxes, like water taxes, drainage taxes, fire taxes, etc., which are payments for special benefits received. Such payments for special benefits, where finally chargeable to operating expenses, must, when prepaid, be charged to the account "Other Prepayments".

PREPAID INSURANCE.

When premiums on insurance policies are paid in advance of their accrual, the amount prepaid (whether paid in cash or by the issue of notes or other negotiable paper) shall be charged to this account. As such premiums accrue they shall be credited at monthly intervals to this account and charged to the appropriate expense account.

PREPAID RENTS.

When rents are paid in advance of the enjoyment of the term, the amount prepaid (whether paid in cash or by the issue of notes or other negotiable paper) shall be charged to this account. As the term is consumed, this account shall be credited at monthly intervals and the appropriate rent account in the income account shall be charged.

OTHER PREPAYMENTS.

When prepayments are made for any other thing than taxes, insurance, and rents, above provided for, such prepayments shall be charged to this account; and as the purpose of the prepayment is satisfied, proportionate amounts shall be credited monthly to this account and charged to the appropriate expense or income account.

SUSPENSE.

When any expenditure is made, the appropriate disposition of which is not yet determinable, or when any loss occurs which under the rules of the Public Service Commission may be spread over a period of time, or when any debit made for any other reason may be amortized through charges made to expense or other income accounts at intervals over a period of time, such expenditure, loss, or other debit shall, except as herein otherwise directed, be charged to an appropriate account in this group of accounts.

NOTE.—By "amortization" of any charge or credit is meant its gradual extinction. The word is broader than the word "depreciation," since the latter is restricted ordinarily to tangible property. The word "depreciation" also imports more of the idea of fluctuating value and is complicated somewhat with the question of cost of replacement at market prices. Because it is considered unnecessary in connection with the gradual consumption or expiration of life of capital to consider the question of cost of replacement until the replacement is actually made, at which time the cost of replacement is duly charged to the appropriate account, and because provision is necessary for the gradual extinction of certain charges (such as those for some kinds of capital, those for extraordinary casualties, for discount on debt, etc.), to which the term "depreciation" does not well apply, it is considered advisable to use the term "amortization" in connection with the extinction of such charges, and of certain corresponding credits, such as premiums on debt outstanding.

UNAMORTIZED DEBT DISCOUNT AND EXPENSE.

When funded debt securities and other evidences of indebtedness are disposed of for a consideration whose cash value is less than the sum of the par value of the securities or other evidence of indebtedness and the interest thereon accrued at the time the transfer takes place, the excess of such sum of the par value and accrued interest over the cash value of the consideration received shall be charged to this account. To this account shall also be charged all expense connected with the issue and sale of evidence of debt, such as fees for drafting mortgages and trust deeds, fees and taxes for recording mortgages and trust deeds, cost of engraving and printing bonds, certificates of indebtedness, and other commercial paper having a life of more than one year, fees paid trustees provided for in mortgages and trust deeds, fees and commissions paid underwriters and brokers for marketing such evidence of debt, and other like expense. At or before the close of each fiscal period thereafter, a proportion of such discount and expense based upon the life of the security to maturity shall be credited to this account and charged to the account "Amortization of Debt Discount and Expense" in "Income" account. Such discount and expense may, if desired, be amortized more rapidly through charges of all or any part of it, either at the time of issue or later, to the account of "Other Deductions from Surplus."

OTHER SUSPENSE.

To this account shall be made all debits not elsewhere provided for and the proper final disposition of which is uncertain. This will include all such matters as expense of preliminary surveys, plans, investigations, etc., made for determining the feasibility of projects under contemplation. Should any such project later be carried to completion, such amount should be credited to this account and charged to the proper capital account; should it be abandoned, such amounts shall be charged to "Corporate Surplus or Deficit."

When the proper disposition of any matter charged to this account is determined, it shall be credited to this account and charged to the appropriate account.

## (945) SECURITIES.

SECURITIES ACTUALLY ISSUED AND LATER RE-ACQUIRED.—For the case of securities *actually issued* by the corporation and later re-acquired by it, the following account is provided:

RE-ACQUIRED SECURITIES.

When securities, whether funded debt or stocks, have been actually issued to bona fide holders for value (or after such issue by another corporation have been assumed by the accounting corporation), and after such issue (or assumption) have been acquired by the corporation under circumstances which require that they should not be treated as paid or retired, they shall be charged at face values to this account.





DEBT DEFINED.—The word debt, as here used, covers all absolute obligations to pay money at a definite time or times, or at a time or times which are capable of being made definite by demand or other act of the creditor. It does not cover contingent obligations, such as obligations to pay rent for future enjoyment of the term, liabilities of indorsers upon paper not yet defaulted, etc.

Debt is divided into *Funded Debt* and *Unfunded Debt*.

FUNDED DEBT DEFINED.—Funded Debt comprises all debt which by the terms of its creation does not mature until more than one year after date of creation.

FUNDED DEBT ACCOUNTS.

FUNDED DEBT ACCOUNTS.—Funded debt shall be divided in the accounts into classes, such classes being determined by the four characteristics: (1) mortgage or other lien security therefor, (2) rate of interest, (3) interest dates, and (4) date of maturity. A separate sub-account shall be raised for each such class of funded debt, and no two amounts of debt not agreeing in respect of all four of the characteristics above named shall be included in the same sub-account. The title of each sub-account of funded debt shall express the four characteristics above stated, that is to say: mortgage or other lien or security, rate of interest, dates of maturity of interest, and date of maturity of principal; as *e. g.*, "First Mortgage 5% QF 10, Aug. 10, 1928." which means funded debt secured by the company's first mortgage, bearing interest at the rate of 5 per cent, per annum, interest maturing quarterly on February 10th, May 10th, August 10th, and November 10th of each year, principal maturing May 10, 1928.

Where any portion of the funded debt rests only on the general credit of the corporation and is not specially secured or supported by lien of any character, it shall for the purposes of these accounts be known as a "debenture". "Debentures" thus include promissory notes unsecured by mortgage or other lien, also those securities commonly known as "plain bonds".

To the appropriate sub-account in "Funded Debt" shall be credited when issued the par value of the amount of evidence of funded indebtness issued. The entry shall show not only amount issued but the purpose for which issued, and shall make intelligible reference to the book, page, and account whereon are shown any discounts or premiums realized on the amount issued. If the consideration received for the issue is anything else than money, the entry shall show further the principal to whom issued, and shall describe with sufficient particularity to identify it the actual consideration received for the issue. If the issue in any case is to an agent of an undisclosed principal, the name and business address of such agent and the fact of his agency shall be shown in the entry.

UNFUNDED DEBT ACCOUNTS.

UNFUNDED DEBT DEFINED.—Unfunded Debt comprises all debt which by the terms of its creation matures one year or less after the date of creation or after demand.

Unfunded Debt Accounts.—The accounts for Unfunded Debt are defined as follows:

TAXES ACCRUED.

Credit to this account at the close of each month the taxes accrued during the month, and make corresponding charges to the appropriate "Taxes" account. Credits to the account "Taxes Accrued" will necessarily be based upon estimate until the amount of tax levied for the tax period is known; such estimates shall be based upon the best data available, and as soon as the amount of tax for the period is known the account involved shall be adjusted to conform. When any tax is paid it shall be charged to this account and credited to "Cash" or other suitable account.

JUDGMENTS UNPAID.

INTEREST ACCRUED.

DIVIDENDS DECLARED.

ACCOUNTS PAYABLE.

RESERVES.

Reserves.—Reserves shall be classified as Permanent and Temporary.

Permanent Reserves Defined.—By Permanent Reserves are meant those that must be maintained intact during the life of the corporation. Permanent reserves shall be classified into two classes: Premiums on Stocks, and Other Permanent Reserves.

PREMIUMS ON STOCKS.

Premiums on stocks shall be sub-classed with respect to the several classes of stocks, for definitions of which see the accounts under the head "Stocks". A sub-account shall be kept for each particular class of stocks, and such sub-accounts shall be severally entitled:

*Premiums on Debenture Stocks.*

*Premiums on First Preferred Stocks.*

*Premiums on Second Preferred Stocks, etc.*, and

*Premiums on Common Stock.*

When a premium is realized upon an issue of any particular class of stock, such premium shall be credited to the sub-account above provided for such class of stock, and such credit shall remain in such account so long as such stock remains outstanding. By a premium realized (as the words are above used) is meant the excess of the actual money value( at the time of issue of the stock) of the consideration received for such issue over the par value of the amount of stock issued. If the stock is issued by the corporation to its treasurer or other agent, the excess of the actual money value of the consideration obtained by such agent in exchange for such stock over the par value thereof shall be considered the premium realized.

OTHER PERMANENT RESERVES.

Credit to this account all reserves not above provided for created to remain intact until the dissolution of the corporation. A separate sub-





account shall be created for each particular purpose for which a reserve is raised, and the purpose of the reserve shall be designated in the title of the account thereof and shall be expressed in full in the first entry of such account.

Temporary Reserves Defined.—By Temporary Reserves are meant those that are not intended to remain intact during the life of the corporation. Temporary Reserves shall be classified as *Contractual Reserves* and *Non-contractual Reserves.*

Contractual Reserves Defined.—Contractual Reserves are reserves necessitated by contracts of the corporation, as *e. g.*, reserves to cover sinking funds provided for in mortgages, etc. A separate sub-account shall be raised for each particular contractual reserve, and to such account shall be credited all appropriations and accumulations made in accordance with the contract provisions under which such reserve is created. The purpose of the reserve shall be designated in the title of the account thereof and shall be expressed in full in the first entry in such account.

Non-contractual Reserves Defined.—Non-contractual Reserves are such temporary reserves as are raised without being required under any contract. Non-contractual Reserves are divided into *Required* and *Optional.*

Required Reserve Accounts.—Required Reserves are provided for in the following accounts:

ACCRUED AMORTIZATION OF CAPITAL.

Credit to this account such amounts as are charged from time to time to "Operating Expense," or other accounts to cover depreciation of way and structures, depreciation of equipment, and other amortization of capital. When any capital is retired from service, the original money cost thereof (estimated if not known, and where estimated, that fact and the facts upon which the basis is estimated shall be stated in the entry), less salvage, shall (except as provided in the account "Fixed Capital, December 31, 1908",) be charged to this account. The amount originally entered or contained in the charges to any capital account in respect of such capital so going out of service shall be credited to appropriate sub-account under the account "Corporate Surplus or Deficit".

UNAMORTIZED PREMIUM ON DEBT.

When funded debt securities or other evidences of indebtedness are disposed of for a consideration whose cash value is greater than the sum of the par value of such securities or other evidences of indebtedness and the interest thereon accrued at the time the transfer takes place, the excess of the cash value of such consideration received over the sum of the par value of the securities or other evidence of indebtedness and the accrued interest shall be credited to this account. At monthly intervals thereafter a proportion of such premium based upon the life of the security or other evidence of indebtedness to maturity shall be charged to this account and credited to "Amortization of Premium on Debt," in "Income" account; or at the option of the corporation the charge to this account may be delayed to a time not later than the date of maturity of the debt, in which case the proportion appli-

cable to the period covered by the current income account shall be credited to the account "Amortization of Premium on Debt," and the remainder of the credit shall be the account "Other Additions to Surplus."

OTHER REQUIRED RESERVES.

Credit to this account all required reserves not elsewhere provided for. The first entry of a credit to this account with respect to any particular reserve shall show the purpose of the reserve and every subsequent entry with respect to that reserve shall designate the reserve to which it relates.

OPTIONAL RESERVE ACCOUNTS.—*Optional Reserves* are those the creation of which is solely within the discretion of the corporation. For such reserves the following two accounts are provided:

CASUALTIES AND INSURANCE RESERVE.

When any admitted liability arises because of loss or damage to the property of others, or of injuries to employees or other persons, the amount of the liability may (if not previously provided for by insurance or self-insurance) be charged to the appropriate operating expense or other accounts and credited to this account, against which (in such case) the actual cost of satisfaction of the liability shall be charged when the matter is determined. If the extent of the liability can not be ascertained promptly after the liability arises, it may be estimated as accurately as practicable for the purpose of determining the immediate charge to the expense or other appropriate account, in which case the matter shall be adjusted when the extent of the liability is definitely ascertained. If the loss is of such character that it is in whole or part indemnifiable under any contract of insurance carried by the corporation, the indemnifiable portion of the loss shall be charged to the insurer and credited to "Casualties and Insurance Reserve." Also credit to this account the amounts charged to the operating expense account "Insurance" to cover self-carried risks.

OTHER OPTIONAL RESERVES.

A sub-account shall be raised for each particular reserve, and its title shall designate the purpose of such reserve and the first entry therein shall express in full such purpose.

STOCKS DEFINED.—By *Stocks* of a corporation, as the term is here used, are meant those securities which represent permanent interest in the corporation or interests which, if terminable, are so only at the option of the corporation.

STOCKS CLASSIFIED.—Stocks are classified as:

*Debenture Stocks,*
*First Preferred Stocks,*
*Second Preferred Stocks*, etc., and
*Common Stocks.*

DEBENTURE STOCKS DEFINED.—*Debenture Stocks* are those issued under a contract to pay absolutely thereon at specified intervals a specified return.

FIRST PREFERRED STOCKS DEFINED.—*First Preferred Stocks* are those which have the first claim upon such dividends as may be distributed. They





may be cumulative or noncumulative, participating or nonparticipating. If *cumulative*, the amount by which the dividend at any dividend period fails to reach the stipulated rate is caried forward to continue as a claim upon dividends until satisfied; if *noncumulative*, such amount lapses. If a first preferred stock is *participating*, it is not limited to the stipulated rate in the amount of dividends which it may receive, but is entitled to participate, in accordance with the terms of the contract under which it is issued, in further dividends; if *nonparticipating*, it is limited to the stipulated rate.

SECOND PREFERRED STOCKS DEFINED.—*Second Preferred Stocks* are those whose claim in the distribution of dividends are next after those of first preferred stocks. These stocks may also be cumulative or noncumulative, participating or nonparticipating.

COMMON STOCKS DEFINED.—*Common Stocks* are those whose claims in the distribution of dividends are subordinate to the claims of all other stocks.

VOTING POWERS.—Stocks differ also in regard to the voting powers incident to ownership of them.

RETIREMENT OF STOCKS.—Stocks are sometimes issued under contracts wherein the issuing corporation reserves to itself the right to retire them at its option, either absolute or subject to conditions expressed in the contracts whereunder the stocks are issued.

## INCOME ACCOUNT.

DIVISIONS OF INCOME ACCOUNT.—The principal divisions of this group of accounts are the "*Revenue*" accounts, the "*Revenue Deduction*" accounts, the "*Income Deduction*" accounts, and the "*Appropriation*" accounts.

REVENUES DEFINED.—By *Revenues*, as the word is used herein, are meant all amounts of money which the corporation receives or becomes lawfully entitled to recover for services rendered, for products sold, as gross profits on merchandise sold, or as a return upon its property (or interests in property). Revenues are classified as *Operating Revenues* and *Non-Operating Revenues.*

OPERATING REVENUES DEFINED.—Operating Revenues are those derived from the sale of products and merchandise, from services rendered, and from return on property by the person or corporation in its operations.

NON-OPERATING REVENUES DEFINED.—Non-operating Revenues are those derived as a return upon the property of the corporation in the hands of others or from its interest in property in the hands of others. They may be subclassified as *Rents, Interest, Dividends,* and *Miscellaneous.*

REVENUE DEDUCTIONS DEFINED.—Revenue Deductions include *Expenses, Taxes,* and *Uncollectible Bills.*

EXPENSES DEFINED.—Expenses are those outgoes (including capital consumed) necessary to the production of the commodities sold and the services rendered, and to the collection of the revenues. They are *divided into Operating Expenses* and *Non-operating Expenses.* Operating Expenses are those incident to the operating revenues.

TAXES DEFINED.—Taxes are those annual or other payments exacted by governments for the purpose of raising funds for public uses.

UNCOLLECTIBLE BILLS DEFINED.—When a corporation is engaged regularly in rendering to general consumers a service, or in supplying to such consumers a commodity (as *e. g.*, electric energy or gas for light, heat, or power), current accounts or claims against such consumers for such service rendered or commodity supplied which are incapable of collection by the exercise of reasonable diligence are included under the name *Uncollectible Bills.*

GROSS INCOME, INCOME DEDUCTIONS, AND NET CORPORATE INCOME DEFINED.—Revenues, diminished by expenses, taxes, and uncollectible bills, give an amount called *Gross Income,* which is applicable to corporate and leased properties. Gross income is subject to several compulsory deductions, mostly contractual, like rent, interest, etc., and the remainder after these are made is called *Net Corporate Income,* which being subject only to the discretion of the corporation is most conveniently carried directly to the corporate surplus. The accounts covering the compulsory deductions from gross income, as above defined, are called the *Income Deductions* accounts.

APPROPRIATION ACCOUNTS DEFINED.—The accounts covering the yearly changes in the corporate surplus are called the *Appropriation* accounts, since practically all of the matters covered by them are within the discretion of the corporation, although they also include certain adjustments made because of facts of previous years imperfectly accounted for at the time (whether through error or through lack of information) and certain other minor matters like extraordinary expenses not chargeable as deductions from revenues; also such matters as profits on the sale of capital, and profits and losses on the sale of investments.

## OPERATING REVENUE ACCOUNTS.

*Revenue from Transportation*

(451) Passenger Revenue
(453) Freight Revenue
(454) Mail Revenue
(455) Express Revenue
(459) Other Car Earnings
- (*a*) Baggage Revenue.
- (*b*) Chartered Car Revenue.
- (*c*) Parlor and Chair Car Revenue.
- (*d*) Milk Revenue.
- (*e*) Switching Revenue.
- (*f*) Miscellaneous Transportation Revenue.

*Other Street Railway Operating Revenues.*

(460) Advertising
(461) Other Car and Station Privileges
(462) Rent for Buildings and Other Property
(463) Rent of Equipment
(464) Rent of Tracks and Terminals





(465) Sale of Power.
(466) Joint Electric Power Revenue.
(468) Miscellaneous Receipts.
- (*a*) Parcel Room Receipts.
- (*b*) Storage.
- (*c*) Car Service.
- (*d*) Telephone and Telegraph Service.
- (*e*) Park and Resort Revenue.
- (*f*) Miscellaneous.

Revenues from Outside Operations.

*Condensed Classification of Operating Expense Accounts for Small Carriers and Extended Classification for Large Carriers.*

| ACCOUNTS FOR SMALL CARRIERS. | CORRESPONDING ACCOUNTS FOR LARGE CARRIERS. |
|---|---|
| I. MAINTENANCE OF WAY AND STRUCTURES— | I. MAINTENANCE OF WAY AND STRUCTURES— |
| 1. Superintendence. | 1. Superintendence. |
| 2. Maintenance of Roadway and Track. | 2. Ballast.<br>3. Ties.<br>4. Rails.<br>5. Other Track Material.<br>6. Roadway and Track.<br>7. Removal of Snow, Sand, and Ice. |
| 3. Maintenance of Track Structures. | 8. Tunnels.<br>9. Bridges, Trestles, and Culverts.<br>10. Over and Under Grade Crossings.<br>11. Grade Crossings, Fences, Cattle Guards and Signals.<br>12. Snow and Sand Fences and Snowsheds.<br>13. Signals and Interlocking Plants.<br>14. Telegraph and Telephone Lines.<br>15. Electric Power Transmission. |
| 4. Maintenance of Buildings, Docks, and Wharves. | 16. Buildings, Fixtures and Grounds.<br>17. Docks and Wharves. |
| 5. Injuries to Persons. | 19. Injuries to Persons. |
| 6. Other Maintenance of Way and Structures Expenses. | 18. Roadway Tools and Supplies.<br>20. Stationery and Printing.<br>21. Other Expenses. |
| 7. Maintaining Joint Tracks, Yards, and other Facilities—Dr. | 22. Maintaining Joint Tracks, Yards, and Other Facilities—Dr. |

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| 8. Maintaining Joint Tracks, Yards, and Other Facilities—Cr. | 23. Maintaining Joint Tracks, Yards, and Other Facilities—Cr. |
| II. MAINTENANCE OF EQUIPMENT— | II. MAINTENANCE OF EQUIPMENT— |
| 9. Superintendence. | 24. Superintendence. |
| 10. Locomotives—Repairs. | 25. Steam Locomotives—Repairs.<br>28. Electric Locomotives—Repairs. |
| 11. Cars—Repairs. | 31. Passenger-train Cars—Repairs.<br>34. Freight-train Cars—Repairs.<br>37. Electric Equipment of Cars—Repairs. |
| 12. Floating Equipment—Repairs. | 40. Floating Equipment—Repairs. |
| 13. Work Equipment—Repairs. | 43. Work Equipment—Repairs. |
| 14. Equipment—Renewals. | 26. Steam Locomotives—Renewals.<br>29. Electric Locomotives—Renewals.<br>32. Passenger-train Cars—Renewals.<br>35. Freight-train Cars—Renewals.<br>38. Electric Equipment of Cars—Renewals.<br>41. Floating Equipment—Renewals.<br>44. Work Equipment—Renewals. |
| 15. Equipment—Depreciation. | 27. Steam Locomotives—Depreciation.<br>30. Electric Locomotives—Depreciation.<br>33. Passenger-train Cars—Depreciation.<br>36. Freight-train Cars—Depreciation.<br>39. Electric Equipment Cars—Depreciation.<br>42. Floating Equipment—Depreciation.<br>45. Work Equipment—Depreciation. |
| 16. Injuries to Persons. | 48. Injuries to Persons. |
| 17. Other Maintenance of Equipment Expenses. | 46. Shop Machinery and Tools.<br>47. Power Plant Equipment.<br>49. Stationery and Printing.<br>50. Other Expenses. |





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| 18. Maintaining Joint Equipment at Terminals—Dr. | 51. Maintaining Joint Equipment at Terminals—Dr. |
| 19. Maintaining Joint Equipment at Terminals—Cr. | 52. Maintaining Joint Equipment at Terminals—Cr. |
| III. TRAFFIC EXPENSES— | III. TRAFFIC EXPENSES— |
| 20. Traffic Expenses. | 53. Superintendence.<br>54. Outside Agencies.<br>55. Advertising.<br>56. Traffic Associations.<br>57. Fast Freight Lines.<br>58. Industrial and Immigration Bureaus.<br>59. Stationery and Printing.<br>60. Other Expenses. |
| IV. TRANSPORTATION EXPENSES— | IV. TRANSPORTATION EXPENSES— |
| 21. Superintendence and Dispatching Trains. | 61. Superintendence.<br>62. Dispatching Trains. |
| 22. Station Service. | 63. Station Employes.<br>64. Weighing and Car Service Associations.<br>65. Coal and Ore Docks.<br>66. Station Supplies and Expenses. |
| 23. Yard Enginemen. | 71. Yard Enginemen. |
| 24. Other Yard Employes. | 67. Yardmasters and their Clerks.<br>68. Yard Conductors and Brakemen.<br>69. Yard Switch and Signal Tenders. |
| 25. Fuel for Yard Locomotives. | 73. Fuel for Yard Locomotives. |
| 26. All Other Yard Expenses. | 70. Yard Supplies and Expenses.<br>72. Enginehouse Expenses—Yard.<br>74. Water for Yard Locomotives.<br>75. Lubricants for Yard Locomotives.<br>76. Other Supplies for Yard Locomotives. |
| 27. Operating Joint Yards and Terminals—Dr. | 77. Operating Joint Yards and Terminals—Dr. |

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| 28. Operating Joint Yards and Terminals—Cr. | 78. Operating Joint Yards and Terminals—Cr. |
| 29. Road Enginemen and Motormen. | 80. Road Enginemen.<br>79. Motormen. |
| 30. Fuel for Road Locomotives. | 82. Fuel for Road Locomotives. |
| 31. Other Road Locomotive Supplies and Expenses. | 83. Water for Road Locomotives.<br>84. Lubricants for Road Locomotives.<br>85. Other Supplies for Road Locomotives.<br>81. Enginehouse Expenses—Road.<br>86. Operating Power Plants.<br>87. Purchased Power. |
| 32. Road Trainmen. | 88. Road Trainmen. |
| 33. Train Supplies and Expenses. | 89. Train Supplies and Expenses. |
| 34. Injuries to Persons. | 103. Injuries to Persons. |
| 35. Loss and Damage. | 99. Loss and Damage—Freight.<br>100. Loss and Damage—Baggage. |
| 36. Other Casualties. | 93. Clearing Wrecks.<br>101. Damage to Property.<br>102. Damage to Stock on Right of Way. |
| 37. All other Transportation Expenses. | 90. Interlockers and Block and Other Signals—Operation.<br>91. Crossing Flagmen and Gatemen.<br>92. Drawbridge Operation.<br>94. Telegraph and Telephone—Operation.<br>95. Operating Floating Equipment.<br>96. Express Service.<br>97. Stationery and Printing.<br>98. Other Expenses. |
| 38. Operating Joint Tracks and Facilities—Dr. | 104. Operating Joint Tracks and Facilities—Dr. |





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| 39. Operating Joint Tracks and Facilities—Cr. | 105. Operating Joint Tracks and Facilities—Cr. |
| **V. GENERAL EXPENSES—** | **V. GENERAL EXPENSES—** |
| 40. Administration. | 106. Salaries and Expenses of General Officers.<br>107. Salaries and Expenses of Clerks and Attendants.<br>108. General Office Supplies and Expenses.<br>109. Law Expenses. |
| 41. Insurance. | 110. Insurance. |
| 42. Other General Expenses. | 111. Relief Department Expenses.<br>112. Pensions.<br>113. Stationery and Printing.<br>114. Other Expenses. |
| 43. General Administration Joint Tracks, Yards, and Terminals—Dr. | 115. General Administration Joint Tracks, Yards, and Terminals—Dr. |
| 44. General Administration Joint Tracks, Yards, and Terminals—Cr. | 116. General Administration Joint Tracks, Yards, and Terminals—Cr. |

## (946) CLASSIFICATION OF CAR-MILES, CAR SEAT-MILES AND CAR-HOURS.

### DEFINITIONS OF CAR-MILES AND CAR SEAT-MILES ACCOUNTS.

#### PASSENGER CAR-MILES—ACTIVE.

This account includes miles run by revenue earning cars for the transportation of passengers (including *combination* passenger and baggage, mail or express cars) between the termini of regular routes or over portions of such routes.

The record of passenger car-miles—active, shall be kept for each car route, and shall show for each route the length of the route in miles and hundredths of a mile, and for each day the number of cars operated full time, the number of trippers, and the number of trips. The cars shall be divided into classes according to their seating capacities, and the seating capacity of each class multiplied into the number of miles run by that class on the particular route, the resultant being the " seat-miles " on each such route for a given day.

PASSENGER CAR-MILES—IDLE.

This account includes miles run by revenue earning passenger cars (or combination passenger and baggage, mail or express cars) between the car house and the initial route terminal. This record shall be kept for each car house.

SPECIAL PASSENGER CAR-MILES.

This account includes miles run by chartered passenger cars over regular or special route, reckoning from the time such cars leave the car house until they complete the trip.

MAIL CAR-MILES.

This account includes miles run by cars to transport mail, when not carrying passengers, reckoning from the time such cars leave the car house.

NOTE.—This account must not include any miles run by *combination* cars for the purpose of carrying passengers, even though such cars also carry mail. Miles run by such cars are provided for in accounts "Passenger car-miles—Active," and "Passenger Car-miles—Idle."

EXPRESS CAR-MILES.

This account includes miles run by cars in the express service, reckoning from the time such cars leave the car house. The account shall show the numbers of miles run under load and miles run empty.

FREIGHT CAR-MILES.

This account includes all miles run by cars in freight service, loaded and empty car-miles being separately recorded.

MIXED CAR-MILES.

This account includes all miles run by combination mail, express, and freight cars, shown separately for loaded and empty cars.

NON-REVENUE CAR-MILES.

This account includes miles run by company service cars, including work cars, sand cars, sprinklers, snow-plows, sweepers, wrecking cars, etc.

ELECTRIC LOCOMOTIVE-MILES.

This account includes all miles run by electric locomotives, whether revenue or non-revenue, loaded or light.

2. CLASSIFICATION OF CAR-HOURS.—A record of the time that cars are in service shall be kept for the following classes of cars, corresponding to the Classification of car-miles:

*Passenger Cars (Active and Idle)*, on each car route,
*Special Passenger Cars,*
*Mail Cars,* and
*Express, Freight and Mixed Cars.*





## (947) SUBSIDIARY BOOKS.

Books not of original entry, or the contents of which are not posted to the main books of account, such as order books, advertising records, statistical records.

## (948) SURPLUS.

The excess of assets over liabilities.
The credit balance of a profit and loss account.
See Reserve.

## (949) SUSPENSE.

See Suspense Account.
See Suspense Ledger.
See Doubtful Accounts.

(950) BAD DEBTS.

Debts uncollectable and on which there appears to be no prospect of collection.

In preparing financial statements a provision should always be made, not only for debts which are known to be bad, but to offset a probable loss which at the time of calculating profits cannot be anticipated.

## (951) TELEPHONE BUSINESS RECORDS.

A system of accounting every month for all business done each month at each station and between stations must be made, and a system of reports, audited at the main office, while making a large amount of clerical work, is absolutely necessary. Each day the number of toll messages exchanged with other points is recorded in a ledger, which is ruled separately for each day and each station. At the end of the month the totals are drawn off on a report sheet, showing separate totals of business done with all other stations, and forwarded to the auditor. The auditor's office compares the reports from all the different stations, and if found to agree—which they should do, as messages received at

CHECK LEDGER OF Newtown OFFICE FOR THE MONTH OF December 1905 &c

| Phoenton Office — Messages Sent | | | | | | | | Messages Received | | | | | Office — Messages Sent | | | | | | | Messages Received | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Recd for Messenger | | Messages Day | Messages Night | Extra Msg Day | Extra Msg Night | Amount | Messages Day | Messages Night | Extra Msg Day | Extra Msg Night | Paid for Messenger | | Recd for Messenger | | Messages Day | Messages Night | Extra Msg Day | Extra Msg Night | Amount | Messages Day | Messages Night | Extra Msg Day | Extra Msg Night | Paid for Messenger | |
| 1 | | 10 | 1 | 1 | | 1 | 50 | | | | | | 1 | | | | | | | | | | | | | |
| 2 | | | | | | | | 2 | | | | 10 | 2 | | | | | | | | | | | | | |
| 3 | | | | 1 | | | 25 | | | | | | 3 | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | 4 | | | | | | | | | | | | | |
| 5 | | | | 1 | | 1 | 30 | | | | | | 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | 1 | | 1 | | | 6 | | | | | | | | | | | | | |
| 7 | | | 1 | | | | 50 | | | | | | 7 | | | | | | | | | | | | | |
| 8 | | | 2 | | | | 1 00 | | 1 | | 1 | 15 | 8 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | 9 | | | | | | | | | | | | | |
| 10 | | | 1 | 1 | | | 75 | 3 | | | | | 10 | | | | | | | | | | | | | |

FORM 1.

THE TELEPHONE COMPANY

Newtown Exchange, Ledger for Month of December 1905

| OUT | IN | Rate per Annum | Payable in Advance: Amount | Payable in Advance: Each | SUBSCRIBER | Due from last Report: Rentals | Due from last Report: Messages No | Due from last Report: Messages Amount | Charged: Rentals (current) No | Charged: Messages No | Charged: Messages Amount | Total | Paid: Rentals | Paid: Messages No | Paid: Messages Amount | Unpaid-Forward Report: Rentals | Unpaid-Forward Report: Messages No | Unpaid-Forward Report: Messages Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 9-12-05 | 72- | 6- | Mo. | Doe John | | | | 6- | 19 | 4 30 | 10 30 | 6 | 19 | 4 30 | | | |
| | 1-1-06 | 48- | 4- | - | Roe Richard | 4- | 3 | 1 20 | 4 | 8 | 2 - | 11 - | 4 | 3 | 1 - | 4 | 3 | 2 - |

Form 2.

| | | |
|---|---|---|
| Line No 6921 | Subscriber Doe John | Cable No A-7 |
| Panel 19 | Location 19 West St. | Terminal 7-16 |
| Lamp 4-6 | Business Grocer. | Pair 19 |
| Nor. Resistance 22. | Kind of Line Special. | Ærial Cable A- |
| | Remarks | Pair 3-4 |
| | Other Stations on Line | Arm 2 Pins 7-8 |

Form 3.

Cir. _____ OUT Ticket No 96
From No. 1714-3
Person W. H. WILLIAMS
Place NEWTOWN
To No. 643
Person P. B. BRYANT
Place PHONETON
Rod 6-19 Mi. Line Opr 17
By 7 Minutes 14
Sent 6-22 Mi. Toll 65
By 19 Messenger
Date 12-28

| Date | | | Trouble Reported | Time Reported | Time Assigned | Inspector | Trouble Found | Time Cleared |
|---|---|---|---|---|---|---|---|---|
| 9 | 2 | 05 | Can't raise office | 9- | 10-15 | Dec. | Line broken | 11-30 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Form 4.





B from A should agree with those sent from A to B—each exchange manager charges up the toll messages on his ledger, and the bills, including rental charges for exchange service, are given to the collectors. It is common practice to make out checks or tickets for toll messages in duplicate for every toll connection, the originals being presented to the subscriber, showing all details of his toll charges and thus doing away with many disputes. All money collected is deposited to the order of the exchange manager, and after the collections are made, the manager forwards to the main office a detailed statement, showing amount uncollected at time of previous month's report, amount accrued in rentals and tolls for the current month, amount collected, and amount uncollected and carried over to next report. Some companies require a report showing the condition of each individual account, and others require a special report showing amounts of all uncollected accounts and reasons for non-collections. Accompanying these reports is the manager's check for amount collected, and as the money is deposited to the manager's order, he is generally required to give a bond, large enough to cover a month's business. Current expenses are handled by vouchers and charged to the proper department or expense account.

But in order that patrons will be satisfied to pay for the service they are receiving and the company prosper, the lines and instruments must be ready to do their work at all times. The wire chief is responsible to the manager for locating any breaks in the service, and the superintendent is responsible for the repairs and general maintenance of the plant. Records of all "trouble" are kept by the wire chief, showing time and manner of receiving information, nature of trouble, time repaired and by whom, and remarks. Let us suppose that a little cross-road several miles from an exchange, and connected to it by a toll line, is unable to be called. The wire chief immediately starts to determine with his testing apparatus the nature of the trouble, and at once dispatches a man to drive over the line to the station. The man takes a portable "test set" or telephone with him, and after going a short distance, connects to the line and calls the wire chief for a test, making these tests at short distances, until he runs down the trouble, which may be anything from a couple of twisted wires to a section of poles a half mile long laid flat by lightning.—*H. W. Dehong.*

### (952) Telephone Material and Supplies.

Briefly stated, the benefits of the system outlined herein are as follows: First, it affords a perpetual inventory of all the materials and supplies owned by the company at their several stations, and the value of same in dollars and cents. Second, it gives at all times an absolute check on all supplies bought and used, keeping track of them from the time they are delivered to us until they are used, or other disposition is made of them. Third, it enables us to see just what supplies, and the cost of the same, have been used any day, week, month or year in the construction or maintenance of any exchange or toll line.

This department is handled by one man, termed the "supply manager," who is held at all times directly responsible for all materials owned by the

Article: Dry Batteries - Blue Bell — Place: MALDEN EXCHANGE
Usually Packed: 100 in a barrel. — How Priced: By the hundred - $15.00

| Date | Explanation | Rec. No. | Received No. | Received Amt | Transferred No. | Transferred Amt | Used No. | Used Const'r | Used M't'ce. | On Hand No. | On Hand Amt. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 20 | Brot Forward | | | | | | | | | 20 | 3 00 |
| 3 21 | Report | 16 | | | | | 10 | 1 05 | 45 | 10 | 1 50 |
| 27 | From Campbell | 546 | 100 | 15 00 | | | | | | 110 | 16 50 |
| 29 | To Dexter | 618 | | | 50 | 7 50 | | | | 60 | 9 00 |

FORM 1.

company, and who in turn holds responsible to him the division managers at the several telephone exchanges. A warehouse is established at each exchange, and a general warehouse is located at the company's general offices.

No. 546

SOUTHEAST MISSOURI TELEPHONE COMPANY.

REQUISITION

Supply Manager — Malden, Mo. March 22nd 1905

Please Furnish At Once The Following Supplies:

Ship to Malden, Mo. — Signed L. C. Phillips

| Quantity | Article | Description | No. Now on hand | Office Check |
|---|---|---|---|---|
| 100 | Dry Batteries | Blue Bell Preferred | Ten | |
| 10 | Wall Telephones | Complete | Two | |
| 1 | Desk Telephones | " | None | |
| | | | | |
| | | | | |

FORM 2.

When a bill of supplies is purchased from a dealer, the invoice for same goes first to the book-keeping department, which charges the amount of the invoice to the supply manager. The supply department then takes charge of

No. 546 — Southeast Missouri Telephone Co.

Shipping Order

Manager, Campbell, Mo. — Dexter, Mo. March 24th, 1905 — 190

Ship at once to company at Malden, Mo the following supplies. Send Transfer Sheet of same (Form 14) to this office as soon as shipment is made.

How ship freight — Prepaid or Collect? Collect

J. H. Jones — Supply Manager

| Quantity | Article | Description | Check |
|---|---|---|---|
| 100 | Dry Batteries | Blue Bell | |
| 10 | Wall Telephones | Complete | |
| 1 | Desk Telephone | " | |

FORM 3.





Southeast Missouri Telephone Company
Transfer Sheet

Campbell, Mo., March 25th 1905 190

Supply Manager — As instructed by your Shipping Order No. 546 we forward the following:

Shipped to company at Malden, Mo. — Date Shipped March 25th 190

Charges Prepaid, $ none — Drayage $ 15¢ (Signed)

How Packed One Brl, two Boxes, 569* — J. H. Brown

How Shipped Freight, "Frisco" — Local Manager

| Quantity | Article | Description | Amount |
|---|---|---|---|
| 100 | Dry Batteries | Blue Bell | |
| 10 | Wall Telephones | Complete | |
| 2 | Desk Telephones | " | |
| | | | |

FORM 4.

the invoice, and sends a duplicate of same to the division manager at the exchange where the supplies were shipped, or to the store-keeper at the general warehouse. The supplies being received, the receipt for supplies attached to the duplicate invoice is properly filed and returned to the supply department. The material is then charged to either the general warehouse, or division warehouse, as the case may be.

For each division warehouse, and also for the general warehouse, we have a supply ledger (Form 1). These ledgers are small loose-leaf books, holding sheets 5½ x 8 inches, so made as to fit into pigeon holes in a small wooden cabinet, labeled to show which division or warehouse is included therein. One sheet is used for each article, the sheets being indexed alphabetically in the ledgers.

No orders, shipments or transfers of supplies are made until a requisition is received, as shown by Form 2. The requisition shows merely what is wanted, quantity wanted, and quantity on hand. Requisitions being received from a division station, the material wanted is ordered shipped from the general warehouse if on hand there, or in case of a "rush" order, from the nearest division warehouse which has on hand the material. Order for Shipment to cover requisition being mailed the manager at point from which supplies are to be shipped. The requisitions as received are numbered consecutively, and the shipping order (Form 3) is given the same number. Shipment having been made, the manager at shipping point forwards to the supply department a Transfer Sheet (Form 4) covering same, and the supply department in turn forwards to the station making requisition an invoice covering the shipment, with receipt for the supplies to be filled out and returned.

It will be noted that on both the transfer sheet and the invoice are columns for amount of material in dollars and cents. On the transfer sheet the amounts are filled in when the sheet is received by the supply department. On the invoice, amount is taken from the transfer sheet, a carbon copy of the invoice being made. The transfer sheet is entered directly to the different sheets in the Supply ledger of the warehouse furnishing the supplies, in column "Transferred." Invoice is entered to sheet of warehouse receiving the goods, in column "Received;" the balance "On Hand" and amount of same being

filled in after each entry. The papers covering the transactions are stapled together and filed away according to number. As the "Rec. No." on the Supply ledger shows the number of each transaction, access can be made to the papers very easily.

The manager of each warehouse, and foreman of each crew makes out every working day a report of "Labor and Supplies Used," showing what has been done at his exchange or on his toll line division that day, and what supplies were used in doing it. This daily report is made up in a form of six reports, lasting one week. The reports also show any supplies which he has bought from local dealers and used or put into his stock, and "Supplies put back into stock," such as telephones taken out, etc. From this report it is an easy matter to tell whether the supplies used were for construction or for maintenance of the toll line or exchange, and they are entered accordingly on the supply ledgers. This report also forms a record of the time of each lineman or laborer, and affords an accurate outline of the progress of any construction work.

One more form is used in this department, a "Report of Supplies On Hand," which is simply an inventory of supplies. This is made up at each warehouse the last day of every month, and is checked over with the supply ledger. In case of discrepancies, the division manager is held responsible for amount of same.

At the end of each month the supply manager makes out for the bookkeeping department a report of all supplies used during the month, showing where used, and the amount used for construction work, or for maintenance. The supply department is given credit on the general ledger for the amount of this report, which is charged on the general ledger to the different divisions. —*E. C. Blomeyer.*

### (953) TELEPHONE CONSTRUCTION.

While almost all telephone companies have a system of keeping a record of the cost of construction, few are of value in estimating the cost of future construction.

Most of the systems are designed for the auditing department, so that vouchers may be checked and charged, and expenditures for plant renewals, displacements and additions entered as required by the exigencies of bookkeeping.

The only data for future estimating that may be gleaned from such systems are, for example, the labor and material cost of erecting a mile of pole line composed of a certain number of poles of various sizes, a certain number of anchors, cross arms and miles of wire; or, in the case of a run of underground conduit, the labor and material cost of installing a number of lineal feet of conduit, including vaults, perhaps composed of several different conduit cross sections and several different kinds and sizes of vaults.

The fluctuations in size and number of poles, cost of setting in different kinds of soil, number of miles and size of wire, and in amount of equipment for a mile of pole line; or the fluctuations in size of conduit cross section,





in percentage of vault per foot of conduit, in size of vault, and in character of soil for a run of conduit, make any attempt to use such data in estimating result in a guess.

As it is the custom of showing on a work order to a construction foreman the lump amounts estimated for material and labor—this custom having been found advisable, as among other things, it tends to decrease the cost of construction by placing a limit on expenditures—it is obvious that the estimate must be more than a guess, to have the desired effect of limiting and reducing construction cost.

Construction men are naturally guided by the estimate and they believe the result of their work depends on their success in keeping within the allowed amount. They have a tendency to lay out work with that object in view, and, therefore, when an estimate is too liberal, it generally tends to increase the cost. On the other hand, an estimate which is too small causes construction men to lose interest in their work, knowing that the over-running of an estimate means censure, or even discharge in extreme cases.

Correct estimating presupposes a cost system for the collection of data, which may be readily used for figuring the cost of any kind of telephone construction, in any kind of soil, and for any size job.

A few systems designed for this purpose have been used by different companies and proved impracticable. In most instances, the failure may be attributed either to a tendency to make a division of construction for each different material used, or to an absence of detail and a lack of flexibility.

A system devised by the writer, now in use by a large telephone company, operating in a great city and in the surrounding cities and towns within a radius of fifty miles, combines flexibility with accuracy and practicability. The divisions and subdivisions of construction permit the costs to be analyzed, while avoiding arbitrary divisions. Costs taken by this system may be used for estimating future construction for deciding questions of expediency, in adopting new methods, or for determining the most economical of two or more routes.

On account of the space required to give all details and explanations of a system covering so large a field as telephone construction, only an outline of this system is given in this article.

This system takes only labor costs into consideration, as there is little speculation as to material, quantities or prices—the one being ascertained from general specifications and the other from current quotations.

The costs are taken on the work by a time-keeper, an inspector, or a special cost man.

Memorandum books, ruled like the sample sheets shown in Figs. 1 and 2, are used when gathering the data, and on completion of the job the totals are transferred to the forms, Figs. 3 to 9 inclusive.

Sheets like that shown in Fig. 1 are used for each division of constructions, when gangs are composed of fifteen men or less as in line work. For conduit or other work, where gangs are large, sheets on the style of Fig. 3 are used for each subdivision of the work, and data is taken every quarter

McROY TILE CONDUIT CONSTRUCTION

LAYING TILE PLANK AND CONCRETE

Date Secured by

STREET OR ALLEY LINE POLES

Est.

25'
30'
35'
40'
45' & Heavier

Location Date 190

Foreman

| No. of Poles | Training and Laboring in Hauling | Training & Stepping | Digging & Locating | Setting | Sub and Exp | Total of Cost | Kind of Soil Worked | No. of Hours Worked | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Date Secured by

ERECTING CROSS-ARMS

Est.

6 Pin
10 Pin C U
10 Pin A T & T
Terminal
Cable

Location Date 190

Foreman

| No. of Cross Arms | Training & Laboring in Hauling | Putting on Arms | Super and Exp | Total Cost | No. Hrs. Worked | No. of Poles | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

Date Secured by

UNDERGROUND CABLE (Main)

Est.

Location Date 190

Foreman

| No. of Feet Pulled in | Training & Laboring in Hauling | Pulling Cable | Super and Exp | Total Cost | No. of Hours Worked | Remarks |
|---|---|---|---|---|---|---|
| | | | | | | |

Totals

Average Cost per Ft.





McROY TILE CONDUIT CONSTRUCTION

CONDUIT CROSS SECTION

EST. No. CLASS A OR B

LOCATED BETWEEN VAULTS NO. AND NO. AT

| Date | No. of Feet Removed | Total Cost | No. of Cables Removed | Kind of Cable Removed | Kind of Cable Removed | Kind of Cable Removed | Kind of Cable Removed | Kind of Cable Removed | Kind of Cable Removed | Kind of Cable Removed | Kind of Cable Removed | Kind of Cable Removed | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |

STRAIGHT SPLICE (Underground)

Diagram of Splice

Size of Cable

No. Pin Spliced

Date Secured by

Est.

Date 190

Location

Foreman

| No. of Splices | Training & Laboring in Hauling | Finishing | Testing and Reaming | Splicing | Reaming Joints | Sub and Exp | Total Cost | Extra Hours Worked | Total Hours Worked | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

REMOVING AERIAL CABLE

Date Secured by

Size of Cable

Est.

Jacked or Recovered Location Date 190

Foreman

| No. of Feet Removed | Training & Laboring in Hauling | Removing Cable & Hangers | Removing Strand & Fittings | Sub and Exp | Total Cost | No. of Hours Worked | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

Totals

Average Cost per Ft.

REMOVING WIRE

No. 12 Cable Steel

.200 Copper

104

Exchange

Foreman

Date Secured by

Est. Date 190

| Miles of Wire Removed | No. of Contacts Removed | Training & Laboring in Hauling | Removing | Sub and Expense | Total Cost | Hours Worked | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

Totals

Average Cost per Min.

hour, half hour or hour, depending on the frequency of shifting men from one subdivision of the work to another.

The rates of men—except supervisors—composing conduit gangs being the same, it is only necessary to enter in each half hour column the number of men working on the particular subdivision of work. The cost is then readily found by dividing the total number of men by two and multiplying by the rate per hour.

The column for supervision and expense (Forms 1 to 9 inclusive) is used to enter the cost of foreman, assistant foreman, time-keeper, water boy, watchman and car fare, etc. A separate form, with column, for entering the cost of each subdivision of the work, teaming, supervision and expense, total cost, number of hours worked, and remarks, is used for each division of construction and reconstruction, *e. g.*, farm lines, toll lines, wire stringing, anchors, aerial cable, equipping terminal poles, laterals, vaults, cable splicing, removing poles, removing cross arms, moving poles, replacing cross arms, etc.

In cases where more than one division of construction is worked on during the day, the cost of supervision and expense, teaming, and lost time getting to work or between jobs, is pro-rated. In the case of lost time, after finding the proportion to be charged to a division of construction, it is again pro-rated and added to each subdivision.

The forms (Figs. 3 to 9 inclusive) are totaled and averaged by the cost men, and sent to the main office, where they are entered in books having spaces for the town and date and ruled like the forms. Special pages are used for each division of construction, and the data is separated where soil, size of poles, or other important conditions, differ.

These books are, from time to time, averaged—each previous average being included; and a report of the average construction cost is made and sent to the engineer, the construction superintendents and foremen, in order to call attention to the cost with the object of inviting improvements in methods and materials, which will cheapen construction without lowering its standard.

The averages shown by the cost books are used by a construction cost department in preparing all estimates. When any new method or new material is under consideration, it is referred to this department for data.

It has been found that by the initiation of this system, cost records may be collected which makes estimating accurate and facile; and construction cost is no longer dependent upon speculation and guess; standard methods, long considered economical, have been supplanted by less expensive methods, and experiments are things of the past.—*C. Mayer*

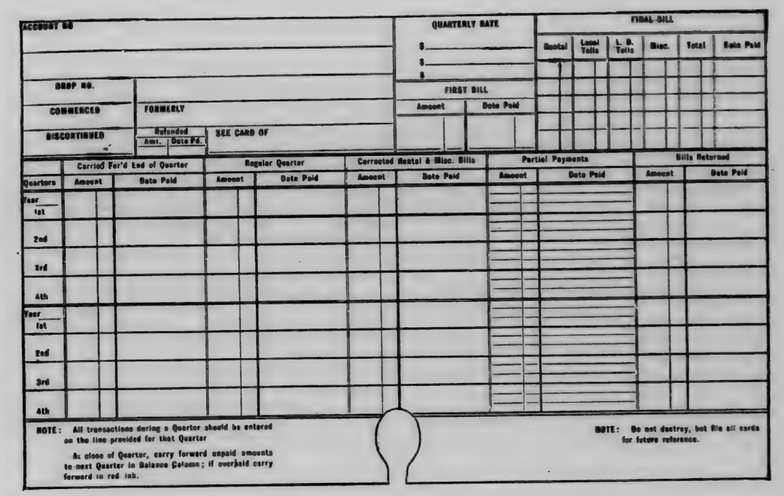
(954) TELEPHONE LEDGERS

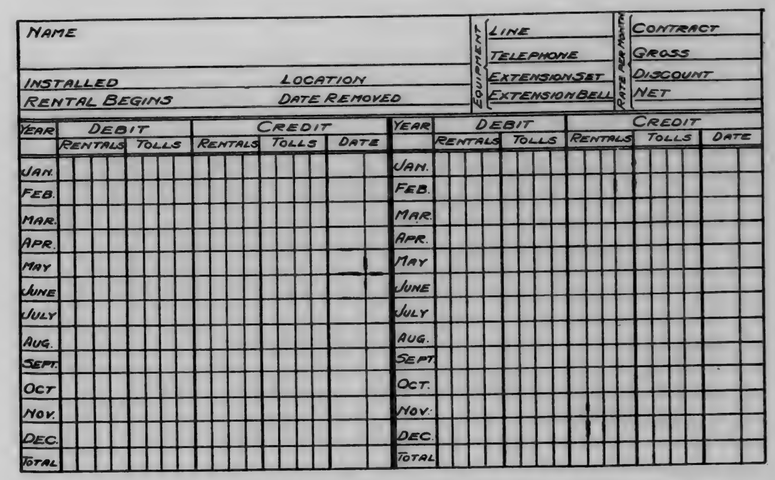
## (955) A CLASSIFICATION OF ACCOUNTS FOR A TELEPHONE COMPANY.

It has become a recognized fact that success in any business is very largely due to a proper system of accounting. Such a system should, as far as possible,








have reference to the various important phases of the business, so that the management periodically has opportunity for comparison, and any unusual change in figures respecting revenues or expenses may be noted, and after being noted, an investigation be made of the causes contributing to the change and a remedy applied if the causes are not deemed natural and reasonable under existing conditions.

A system of accounting as applied to a telephone company is divided into four important groups, one representing assets, one representing liabilities, one representing revenue, and another expense.

The asset accounts are composed of two classes, one class being known as a "quick" asset and the other as a "slow" asset. Under "quick" assets may be found cash on hand, supplies in stock, and accounts due from subscribers. The "slow" assets embrace real estate and the cost of the plant. The plant or construction account of a telephone company should represent the plant whether purchased or built by the company, and does not include real estate. It is composed of the following subdivisions, in accordance with the character of the plant:

1. Exchange Construction, Right of Way.
2. Exchange Construction, Pole Lines.
3. Exchange Construction, Aerial Cable.
4. Exchange Construction, Aerial Wire.
5. Exchange Construction, Underground Conduits.
6. Exchange Construction, Underground Cable.
7. Exchange Construction, Submarine Cable.
8. Exchange Equipment, Central Office.
9. Exchange Equipment, Subscribers' Station.
10. Toll Construction, Right of Way.
11. Toll Construction, Pole Lines.
12. Toll Construction, Aerial Cable.
13. Toll Construction, Aerial Wire.
14. Toll Construction, Underground Conduits.
15. Toll Construction, Underground Cable.
16. Toll Construction, Submarine Cable.

The subdivision, Right of Way (1), should be charged with the amounts paid for permanent right of way for exchange lines; also with the salaries and expenses of the Right of Way Agent, Assistants, and office force while engaged in obtaining such rights.

The account Pole Lines (2), embraces the cost of poles, cross-arms, pins, insulators, guy poles, guy wires and other material employed in the construction of the line; together with freight and drayage, labor, supervision, traveling and other expense incident to the work.

The account Aerial Cable (3), covers the cost of the cable, messenger strand, clamps, cable clips, cable boxes and fittings, potheads, and other material used in hanging cable, with charges for freight and drayage, labor, supervision, traveling, etc.

The account Aerial Wire (4), is charged with the cost of wire used in stringing the circuit, together with other materials used, and also charges for freight, drayage, labor, supervision, traveling, incidentals, etc.

The account Underground Conduits (5), is charged with the cost of conduit, pipe and fittings, cement, brick and material for laying and for manholes, together with charges for freight, drayage, labor, supervision, traveling, incidentals, etc.





The account Underground Cable (6), embraces the cost of cable, cable boxes and fittings, all material used in installation, together with all charges for freight, drayage, labor, supervision, traveling, incidentals, etc.

The account Submarine Cable (7), covers the cost of cable, cable boxes and fittings, all material used in installation, and all charges for freight, drayage, labor, supervision, traveling, incidentals, etc.

The account Equipment, Central Office (8), is charged with the cost of all local and toll switchboards, wire chief's desks, testing equipment, chief operator's and supervisory desks, main and intermediate frames, relay and coil racks, power plant and switchboards, all other material used in installation, installation expense, freight and drayage, insurance, on the equipment while being installed, etc.

The account Equipment, Subscribers' Station (9), is charged with the cost of subscribers' sets, extension sets and bells, arrestors, etc. Also any apparatus for subsidiary or private branch exchanges. The expense of installing the subscribers' telephones is divided, the labor and material for the outside work being charged to Construction, Aerial Wire (4), and the labor and material for the inside work being charged to Construction, Subscribers' Station Equipment(9).

The accounts for Toll Construction (10, 11, 12, 13, 14, 15, 16), have the same principal items charged to each as those for exchange construction just described.

These accounts (1 to 16) are intended to represent the cost of the physical plant, and the Auditor very largely makes the charges to these accounts from the various reports prepared by the managers. It is most important that the figures in the plant account will rest upon correct information, and while including all items properly chargeable to the plant, will exclude any items which might more properly be charged to an expense account.

The liability accounts are few in number, consisting of capital stock, surplus indebtedness, and reserves for requirements which are accruing.

The revenue accounts are derived from three sources, (1) revenue from exchange service, (2) revenue from toll service, and (3) revenue from private line service. The revenue from exchange service embraces all fixed rentals from contracts covering exchange telephone service, the revenue derived from extra calls used by measured service subscribers, and for tolls from pay stations covering local communications. The revenue from toll service covers revenue derived from communications over toll lines. The revenue from private line service covers revenue from instruments leased exclusively for private line or speaking tube purposes, and the revenue derived from private lines which may be furnished or maintained by the telephone company.

The expense accounts are far more elaborate in their character than the revenue accounts. These expense accounts, as far as they relate directly to the operation of the telephone business, comprise four principal sections, each section containing a number of sub-accounts which are intended to convey the character of the expense.

The first of these sections is known as Maintenance, Current Repair, and is charged with the cost of keeping existing telephone property in good working condition, including the replacement of those parts of the plant the normal life of which does not exceed one year. This section has the subsidiary accounts; Salaries and Wages; Rent, Heat and Light; Material; Traveling; Conduit; Pole and Roof Rent; Insurance, etc. Some of the items coming under the head of Repair are: Repair and inspection of poles, wires and cables; repair and inspection of central office apparatus; renewal of batteries; assembling of instruments; removing and replacing instruments, etc.

Salaries and Wages embraces the salaries of foremen, linemen, inspectors, cablemen, splicers, etc., while engaged upon this work.

Rent, Heat and Light, takes care of the rent, heat and light of the space occupied by the foremen, linemen, inspectors, etc., engaged on this class of work, including storage of material used for this work.

Material: This covers the cost of all material used on such work, including freight and cartage thereon, and incidental expense connected therewith.

Traveling covers carfares, meals and lodging of employes while engaged on such work.

Conduit, Pole and Roof Rental covers sums paid for attachments maintained on poles, etc., not belonging to the company, as on bridges, roofs, etc.

Insurance covers the premium on insurance covering material, switchboards, and other telephone property.

The next section, known as Maintenance, Reconstruction, or Depreciation, is often confused with maintenance and sometimes with construction, and represents the expense of replacing portions of the plant whose normal life is more than one year. Depreciation is the difference between the first cost of the construction and its net junk value. This section has much the same subsidiary accounts as Maintenance, Current Repair.

The next section is known as Operating, and, as the name indicates, has to do with the operation of the business. This section has the sub-accounts, Salaries and Wages; Rent, Light and Heat; Advertising and Canvassing; and Incidentals.

The sub-account Salaries and Wages embraces the salaries and wages of telephone operators, including all persons engaged in a supervisory capacity, such as exchange managers, chief operators, supervisors, etc., as well as the wages of toll clerks and collectors, and the commission allowances for attendants at pay and toll stations.

The sub-account Rent, Light and Heat takes care of the expenses covering the rent, light and heat of the space occupied by these forces, and when the premises occupied are in a building owned by the Company, this account is charged with the rent of such building and the Real Estate account is given credit.

Advertising and Canvassing: This account takes care of the expenses of the Contract Department, as well as the time and expense of all managers and others while engaged in soliciting new business or making changes in telephone contracts already existing.





Incidental: To this account are charged expenses which cannot be reasonably fixed against any of the other sub-accounts just mentioned, and embraces such items as laundry, ice water, and other supplies contributing to the comfort of the operators.

The last section, that of General Expense, covers expenses of a general character which cannot be absolutely fixed, and has eight sub-divisions, viz.: Salaries and Wages; Rent, Light and Heat; Traveling; Postage; Printing and Stationery; Directory; Taxes; Legal and Incidental.

The sub-account Salaries and Wages, covers the salaries of the President, Vice-President, General Manager, Secretary, Auditor; and other general officers and their office forces.

The account, Rent, Light and Heat, is charged with the rent, light and heat of the office occupied by the above officers. If the building is owned by the Telephone Company, rent should be computed on portion used for officers and employes names, and the real estate account be given credit.

The sub-account Traveling, covers the traveling expenses of all the general officers and employes while engaged upon general business of the Company.

The sub-account, Postage, Printing and Stationery, is charged with the cost of books, printing, stationery and postage for the use of all departments of the Company. This account does not take care of expense for directory and advertising for new business.

Directory: This account is charged with the salaries of the Superintendent of Directory and office force, rent, light and heat of offices occupied by same, and the cost of printing and distributing directories.

Taxes: This account covers all taxes paid except those on real estate.

Legal: This account embraces the retainers and fees paid attorneys, other than the regular salaried Counsel of the Company.

Incidental: This account embraces uncollectible accounts, and other items of small amount pertaining to the general offices which can not otherwise be properly classified.

## (956) THEATER ACCOUNTING.

The important items which a theater management should always keep a record of are shown at the top of the first illustration as it tells the date, the current attraction and, what is of the utmost importance, the recognized opposition, the percentages as per contract, and the weather conditions which, except in rare instances, regulate to a large extent the patronage.

For illustrative purposes purely the form has been filled out to show in a general way the working of the system, and contains all of the data mentioned above as well as the total receipts at each performance of the week, and both the house and company shares according to the terms of the contract. There is also a place for the traveling manager to receipt for his share of the gross receipts which if drawn at each performance at the time of the "count up," can be initialed in the space where the amount appears in the card, the receipt in full waiting until the final settlement at the close of the engagement.

DATE Week of Nov 11th-16th 1907.
ATTRACTION "When Knighthood was in Flower"
CONTRACT Rome 60% - Company 40%
OPPOSITION Grand Opera: Temple Vaudeville: Lyric: Crane Wednesday and Saturday afternoon. Football

| PERFORMANCES | TOTAL | HOUSE | COMPANY | WEATHER |
|---|---|---|---|---|
| Mon Ev Nov 11 | $ 1170.50 | $ 702.30 | $ 468.20 | Cold |
| Tues " 12 | 1011.25 | 606.75 | 404.50 | Colder |
| Wed Mat " 13 | 655.50 | 393.30 | 262.20 | 10:30 AM First Snow |
| " Eve " 13 | 926.75 | 556 05 | 370.70 | Snow |
| Thurs " " 14 | 1263.50 | 758 10 | 505.40 | Colder |
| Fri " " 15 | 1006.75 | 604.05 | 402.70 | " |
| Sat Mat " 16 | 973.10 | 583.86 | 389.24 | Fine |
| " Eve " 16 | 1326.60 | 795.96 | 530.64 | " |
| TOTAL RECEIPTS & SHARES | $ 8333.95 | $ 5000.37 | $ 3333.58 | |

Received Co. Share in full $3,333.58
J. H. Smith MANAGER

SAME WEEK LAST SEASON

| ATTRACTION | TOTAL | CONTRACT | EXPENSES | WEATHER | |
|---|---|---|---|---|---|
| College Widow | $ 9,479.85 | 60/40 | $ 1312.75 | Good all week | |
| | | | | | |

| SALARIES | | EXPENSES | | REC'D SALARY TO |
|---|---|---|---|---|
| Manager | 70.00 | Rent | 375.00 | Saturday Nov 16th 07 Inc |
| Treasurer | 30.00 | Gas | 12.00 | J.M.T. |
| Asst. Treasurer | 10.00 | Elec. | 97.52 | Wells |
| Orchestra | 197.00 | Bill posting | 256.00 | Hammer |
| Door keeper | 12.00 | Rent Locations | 90.00 | Johnson |
| Stage Hands | 66.00 | Incidentals | 6.75 | Elrich |
| Lithographers | 32.00 | Newspapers | 119.85 | Horner |
| Ushers | 12.00 | Spec. Police | 28.00 | |
| Cleaners | 16.00 | Job Ptg | 16.00 | |
| | $ 395.00 | | $ 901.12 | |

| | | | |
|---|---|---|---|
| Salaries | 395.00 | Total Receipts (House) | $ 5000.37 |
| Other Expenses | 901.12 | Total Expenses | 1296.12 |
| | $ 1296.12 | Profit on Week | $ 3704.25 |
| Brot Forw'd | $ 11742.65 | | |
| Wk. | 3704.25 | | |
| Total | $ 15446.90 | | |

FREE LIST

| | |
|---|---|
| Newspapers | 22 |
| Litho | 260 |
| Personal | 8 |
| | 290 |





As the company manager always receives from the house treasurer a statement when the "count up" is made between the middle and the close of each performance, a duplicate card containing all of the information so far mentioned is furnished the former. In some cases where a play is produced on a royalty basis, or the traveling company has several owners (as is frequently the condition), the company manager receives a copy of the statement for each.

The cards or leaves may be made in loose-leaf style for filing in book form and to facilitate the mailing of them, or in card form for filing in boxes, but, if the former, the grade of the material used should be selected with the object of making a number of carbon copies at the one writing.

As the local manager and the company manager are partners in the business during the engagement specified, all of the information thus far recorded is equally the property of both. The contract stipulates just what each shall furnish, so that those items are of interest only to the party affected.

The rest of the card or form is for the confidential record of the local manager, so far as the working of the system explained is concerned, and may be filled out at the close of the engagement whether it be for a single performance or an extended period, but in the event of the latter, it should only include the data for each week, and the spaces will be found for reference data for the corresponding time of the previous season.

The illustration, for example, shows that last season the "College Widow" company with favorable weather conditions played to $9,479.85 on the same week that "When Knighthood Was in Flower," the current attraction, brought in $8,333.95, when it was good theatrical weather only a part of the week.

As an evidence of how strict some house managers are about the conditions affecting business, reference is made in the weather column of the first illustration where is noted the first fall of snow and as it occurred on a matinee day, the exact time of starting is noted also. The manager by reference to that card next year can tell why the patronage did not come up to the regular business of the Wednesday matinees, as the card will show.

It might be a trifle more explanatory here to state that the reason for entering the expenses and receipts for each of the different attractions is to show the actual profit or loss on each contract, and for the further reason such bills as light, stage hands, newspaper advertising and even the orchestra varies. In the presentation of some productions the light effect makes an increase in that bill over others, and in the event of long intermissions or waits between the acts, the house lights must be run longer and the bill grows. Then, again, some productions need more newspaper advertising, and where the scenery carried is heavy or more elaborate, more stage hands are required and they must be furnished by the house, although they work under the direction of the company stage carpenter for the reason that he is familiar with the "settings" to be made between the acts.

Thus the second illustration shows in the first column the salaries and in the second the other expenses. In the question of rent, if a house has

a season of forty weeks, and the annual rental is $15,000, it is brought down to the week's productive income, which in this case averages $375. Of course, that item can easily be eliminated if the house management does not desire to go into such detail, and be charged in on the first week of the month only, and for the entire month. The incidental item in the second column includes such articles as are used by the cleaners and in petty repairs, etc.

The third and last top column of the second illustration needs no explanation, as it can be plainly seen it is for receipts of employes for salaries, when such a precaution is thought necessary.—*Z. Wells.*

### (957) TICKLER.

A title given to records of matters to be attended to on future occasions, arranged in order of date for daily reference.

A waiting file.

### (958) TOOLS AND SUPPLIES.

See Manufacturing Accounts.

### (959) TRAVELING SALESMEN'S RECORDS.

In a wholesale business, it is frequently important to know where to reach a traveling salesman by wire or letter in order to notify him of a change in prices, to see a prospective customer, or to attend to a doubtful account. The system here illustrated will be found to answer all requirements in this line. Our salesmen cover their territory in two or three weeks—in one case four weeks—and the trips are designated 1, 2, 3, etc. For each trip of every salesman we have a card, 8 inches by 2, on the top of which is written the salesman's name and the number of the trip, the remaining space

OFFICE SALESMAN

| Ent'd Service | Left Service | Salary | Commission | Wk. or Mo. | |
|---|---|---|---|---|---|
| | | | | | |

| Month | Cash Sales | Time Sales | Total Sales | Total Cost | Net Result | Avr. P. M | No. Sold |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |





| Salesman. | SECT 1 SMITH | SECT 2 JONES | SECT. 3 BROWN | Salesman |
|---|---|---|---|---|
| Trip | 2 | 1 | 3 | Trip |
| MON | BROOKLYN AMENS PARIS | JONESBORO COLUMBUS | WASHINGTON | MON |
| TUES | MANCHESTER | AMO ANTRIM LEAH GEM | BEDFORD KANSAS | TUES |

| Week commencing | Smith | Jones | Brown |
|---|---|---|---|
| May 6 | 2 | 2 | 4 |
| 13 | 3 | 1 | 1 |
| 20 | 1 | 2 | 2 |
| 27 | 2 | 1 | 3 |
| June 3 | 3 | 2 | 4 |

being divided into five equal parts for the days of the week from Monday to Friday inclusive. In these divisions are put the names of the towns in which the salesman does business each day of that particular trip. A rubber band is put around the cards for each man's territory, and each bunch is put in a frame, the card for the current week being placed in front. (The illustration also shows that it is not necessary to put the days of the week on the cards, as this information is given on the sides of the frame.) Each salesman's territory is allotted a separate section of the ledger, as shown on top bar of the frame. The frame has a hinged back, which is opened at the close of each week and the cards next the glass transferred to the back, thus leaving the trips for the following week exposed to view.

To guard against errors in charging the trip card (as well as for another purpose explained below) we have a small framed chart showing the numbers only of the salemen's trips for several months ahead.

When the clerk who changes the cards say for week commencing May 6, compares the result with the figures shown on the small chart and finds that they agree, he draws a blue line through the figures on the latter to show that the cards in the larger frame have been changed, and correctly changed, for week commencing May 6.

An alphabetical index of the towns named on the cards completes the system. The list has four columns headed respectively, "Town," "Section," "Trip," and "Day," the entries in the last three columns being made in pencil to facilitate changes if they become necessary. Now, if the clerk is called upon, say on May 7, to answer the question "when will Brown be in

Kansas?" he turns to the alphabetical index and reads "Kansas—3-3-Tu." Glancing at the small chart, he sees that Brown will "make" Trip 3 the week commencing May 27th; so he readily answers the question by saying, "Three weeks from to-day."—*J. J. Elder.*

## (960) TRIAL BALANCE.

A record of the balances drawn off from ledgers at periodical intervals for the purpose of ascertaining the accuracy of the work on same by showing that the total of debit and credit balances agree.

It is always useful to the book-keeper who desires to locate errors made in posting to draw off not only the balances of accounts, but also the total debits and credits, especially where ledgers are sectionalized. By this means he can compare the total debits and credits posted in any section with the totals called for by the books from which the postings have been made.

The American Accountants' Manual describes a trial balance as "a list or schedule of the accounts in the ledger or ledgers of a business remaining open, as at the end of a day specified, showing the ledger folio, name, and Dr. or Cr. Balance or Dr. and Cr. footings of each account in turn and showing an equal aggregate sum of debits and credits. The purpose of a trial balance is primarily to test and demonstrate the equilibrium of the ledger, which, although not proving the absolute correctness of the ledger in all respects, is nevertheless essential to such correctness, and is a preliminary process to closing the books and preparing the business and financial statements."

The definition according to the Century dictionary is, "a method of testing the correctness of the posting of the ledger, (1) as regards the sums posted, and (2) as regards the side to which they are posted. This is effected by summing the debit and credit balances respectively of the personal accounts and then adding to the credit side of this summation the difference between the two sides. If the debits and credits of this final summation exactly balance each other, the presumption is that the ledger has been correctly posted as regards the particuars already mentioned, but not as regards the individual items being posted to the right account."

It appears from the foregoing definitions that a trial balance may be intended to serve one or several purposes:

1. As a test of the correctness of the posting;
2. As a preliminary step to closing the ledger:
3. As a basis from which to formulate the necessary final business and financial statements.

The relation of the Trial Balance to the Trading, and Profit and Loss Accounts, and Balance Sheet, deserves attention, and we therefore append the following explanation:

A trial balance is a list of all the balances in a set of books drawn off for the purpose of verifying the accuracy of the work therein contained.





A trading, or manufacturing, statement contains a summary of material purchased and all expenses directly relating to the cost of production, which deducted from the total sales and goods on hand, exhibits the gross profit on the turnover. Experience has shown that it is best to include in this account only those expenses which vary in proportion to the volume of the output or trade done. Thus rent of factory should be carried in the profit and loss account, while labor should be an item in the trading statement. The percentage of gross profit on turnover will then be sensitive to variations and attract attention to leakages, excessive cost of labor, etc.

A balance sheet is a statement of actual assets and liabilities only.

A profit and loss account is an account into which all accounts representing income, expenditure, or losses are closed, the balance of this account showing the net increase of assets over liabilities for the period covered.

The trial balance contains all the items which appear in the trading statement, balance sheet and profit and loss account, with the exception of the inventory and balances representing gross and net profit.

The trading statement contains an account of manufacturing expense, purchases and sales, and the profit and loss, an account of general and administrative expense and income. The gross profit from the trading statement is carried to the credit of the profit and loss account, and the surplus shown by the profit and loss account will agree with the surplus shown by the balance sheet.

See Balance Sheet.

## (961) TURNOVER.

A term used to designate the cost of goods sold. The turnover of a business is arrived at as follows:

| | |
|---|---|
| Inventory, Jan. 1, 1908 | $18,972.45 |
| Purchases of material | 32,586.20 |
| Labor | 12,979.50 |
| | $64,538.15 |
| Deduct Inventory, Jan. 1, 1909 | 21,465.89 |
| Turnover | $43,072.26 |
| Sold for | $62,985.80 |
| Gross profit | $19,913.54 |

(See also Percentages on Turnover.)

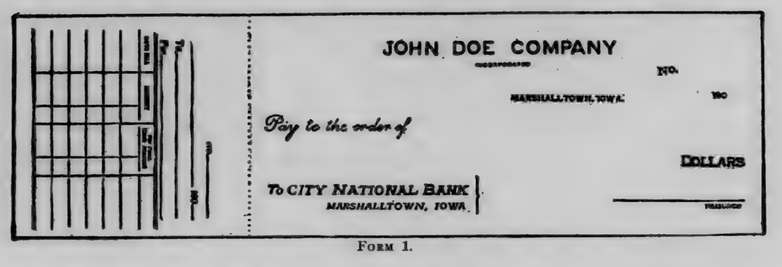
## (962) VOUCHER.

A document which certifies or verifies, the correctness of charges for values paid out or parted with, or of credits for values received.

## (963) VOUCHER CHECK.

A combination check and statement.

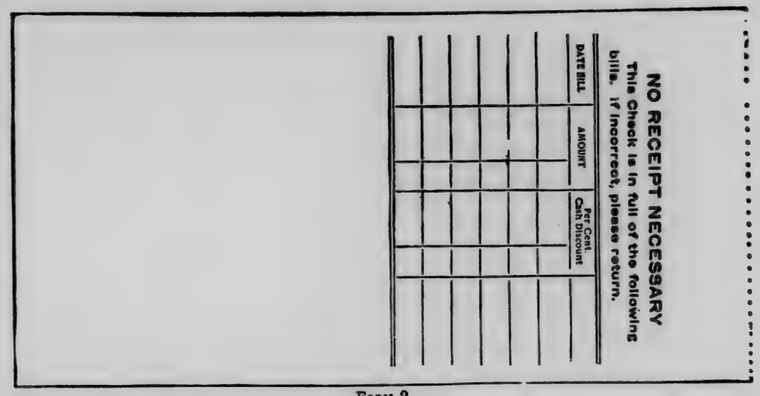
We submit the following forms of voucher check, which, we believe, have exceptional claims to simplicity and, at the same time, meet with the approval of bankers and the requirements of any business.




FORM 1.

In explanation: To the check is attached a stub separated by perforation. Upon this stub is an approved voucher form identical with that appearing upon the back of the check and, when folded, the form of one coincides with the form of the other.

When the book-keeper records the voucher data upon the stub it is transferred to the back of the check with the aid of a piece of carbon paper. The check is then turned over to a stenographer who writes in the face. You will observe the voucher form is complete and that when the indorsement is made, it also constitutes a receipt in full.




FORM 2.

After the check is typewritten, it is examined for correctness, the stub is detached, and after entry of record is made, it is then placed in proper place in numerical check file.





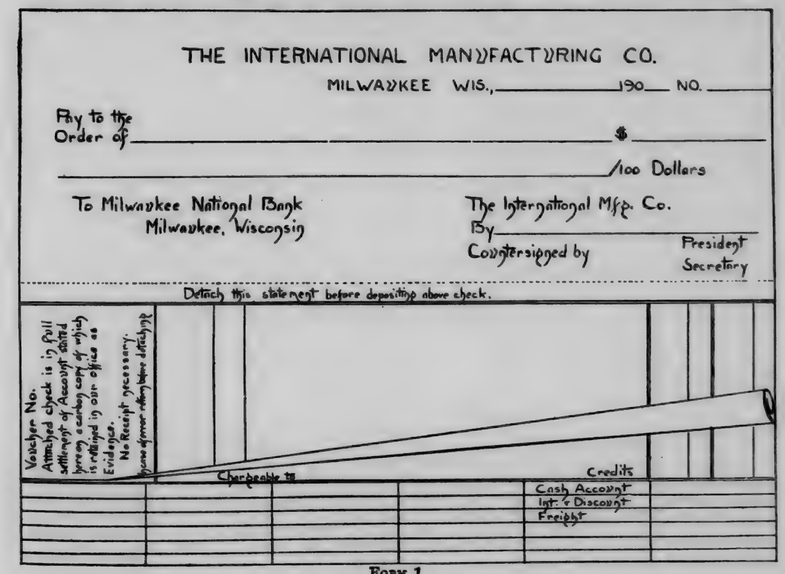
Now, this stub is made longer than the check is wide, and also slightly longer than the height of the numerical division card of the file, so that when placed therein the top protrudes above all, showing number plainly.

The object of this is to facilitate the listing and determining of outstanding checks. Each stub standing represents a check still unreturned. The stubs can all be removed from the file, listed and the information desired obtained in less time than by any other method with which we are familiar.

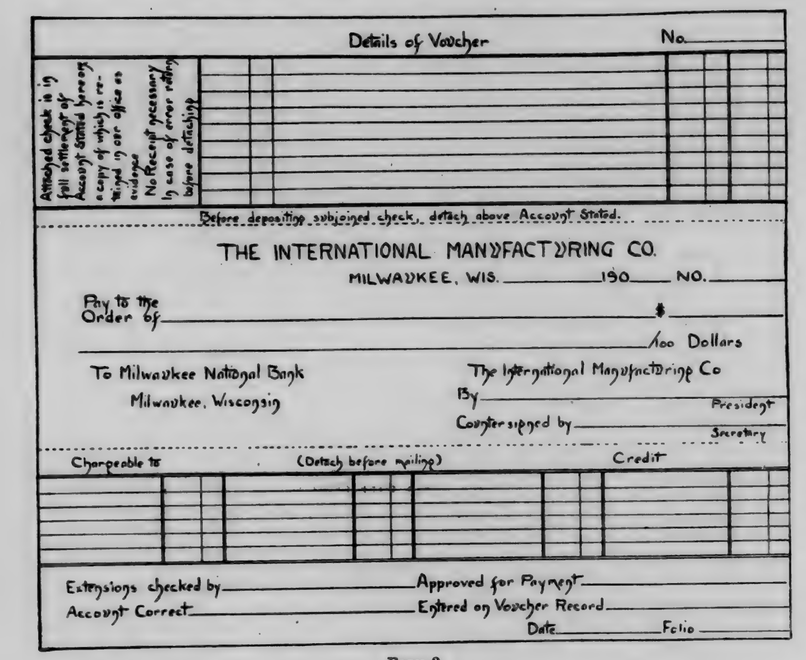
Of course it is understood that when checks are returned by the bank, the stub representing each check is removed and the canceled check inserted in its place.

A voucher check of this form answers every demand placed upon it, is simple, neat and saves an inestimable amount of time.—*E. A. Francis*

Of late years there has been quite a discussion as to the proper form in which voucher checks should be used in the business world. Many of the forms which have heretofore been used have been very complicated. Some of these have been found illegal owing to the fact that they were not orders to pay according to the negotiable instruments law. A great many have been found objectionable on account of the fact that they disclosed information which ought to have been kept private. Bankers have also raised objections to some of these forms for the reason that they were too bulky to be conveniently handled. One form especially was found objectionable in that the same entailed a great deal of work on those who were required to handle them. The form which I have reference to is that one which was at one time




FORM 1.


Details of Voucher No.

Attached check is in full settlement of Account stated herein, a copy of which is retained in our office as evidence. No Receipt necessary. In case of error notify before depositing.

Before depositing subjoined check, detach above Account Stated.

THE INTERNATIONAL MANUFACTURING CO.

MILWAUKEE, WIS. 190 NO.

Pay to the Order of $

100 Dollars

To Milwaukee National Bank
Milwaukee, Wisconsin

The International Manufacturing Co
By President
Countersigned by Secretary

Chargeable to (Detach before mailing) Credit

Extensions checked by Approved for Payment
Account Correct Entered on Voucher Record
Date Folio

FORM 2.

largely used by those using voucher checks. It is the form which at the bottom had the following words: "If properly receipted, this voucher becomes a draft payable at the ——— bank for the above named amount." In the use of this form it was necessary that the draft be first presented for payment, and there have been frequent instances when the same was presented for payment, there being no funds at the bank for the payment of same, it was obliged to be protested for non-payment.

I submit herewith two forms of voucher checks which I think overcome the difficulties which have thus far been encountered with the different forms of voucher checks. Form 1 is to be filled out on the typewriter, the carbon sheet being placed between the two leaves. As the check is filled out on the top half of the upper sheet and the details of the statement are filled in on the lower half of the upper sheet, a voucher is by the same impression filled out on the sheet below. To this form the bills which are awaiting payment are attached. They are then referred to the party who will O. K. the extensions and see that the amounts are correct and O. K. same by entering his initials on the voucher as shown. It is then referred to another party who will see that the proper accounts have been charged and credited, as shown at the bottom of the lower sheet, and





is initialed by the party who performs that duty. The voucher and bills are then referred to the clerk who approves them for payment, and if he finds them correct, he initials them in the proper space for that purpose. After this the check is to be signed for payment by the president and countersigned by the secretary. Before the check is mailed to the creditor the voucher clerk makes an entry of same on the voucher record, and makes a memorandum on the voucher. The check is then ready for mailing.

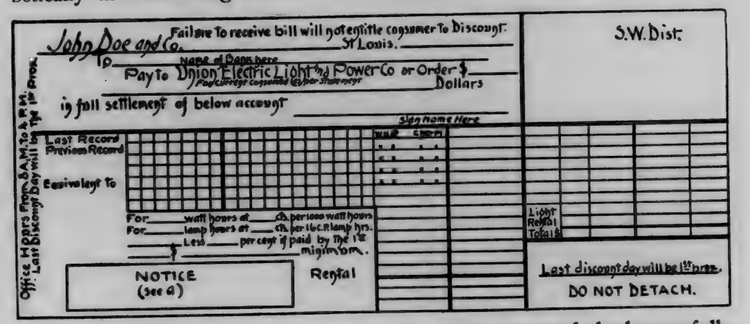
The process of checking can be arranged to meet the requirements of the business, *i. e.*, a less number of people can attend to the checking according as the size of the business demands. Before the voucher check is sent to the party who receives same as payment, the check with statement attached forming the upper sheet is detached from the lower sheet which forms the voucher. The voucher with the bills attached is then filed in alphabetical file under the creditor's name, while the check with the statement attached is sent to the creditor. The creditor will then have a complete statement, with check attached, giving detailed information as to what the check is in payment of, thereby making it unnecessary to return the bills to the creditor to be receipted. Before depositing this check in the bank the creditor detaches the statement, as noted in Form 1, "Detach this statement before depositing this check," and keeps same for his files. The memorandum on the reverse side of the check immediately over his indorsement shows that the check issued is in full for a certain voucher as shown by the number appearing in this memorandum, a statement of which he has had an opportunity to examine before detaching same prior to deposit. His indorsement on the check before deposit constitutes a receipt in full for this detached statement. You will see that with this voucher, the bank will have no more trouble than with an ordinary check. The creditor will have no opportunity after he has once indorsed and deposited the check to deny knowledge of what it was in payment of, and the office issuing the check has an exact record of what the check was issued for, together with a carbon copy of the amount of the check issued, thus making as perfect a scheme as possible as evidence for payments made without disclosing any knowledge to an outsider.

Form 2 is a form of voucher check used in a similar manner to that as shown by Form 1, but Form 2 is used where a typewriter is not desirable. This form is to be filled out either with ink or with copying pencil, the same procedure regarding the checking of extensions, etc., being followed as described in Form 1 excepting that after the amounts have all been checked and found to be O. K. and the check is signed for payment, this form being printed entirely with copying ink can be copied in a press book or press roller machine. Before mailing this check to the creditor, the lower stub is detached and can be destroyed, as a copy has been taken in the press, the value of this statement being only to the extent of completing the record in the press copy so that proper postings can be made from the copy. The press copy is attached to the invoices which this voucher check is in payment of, and filed the same as the lower leaf of Form 1, described above, with bills attached in an alphabetical file. The check with the statement attached is

mailed to the creditor as described in No. 1. I would greatly prefer this Form 2 for the majority of business houses, as the form is entirely printed in copying ink, all blanks are filled out with either ink or copying pencil, and the entire form is copied in the press, making it very difficult to change after the same has been copied.—*C. A. Seifert.*

THE VOUCHER CHECK AS AN ELIMINATOR OF RECEIPTS.

The actual old-fashioned receipt is fast going out of date when checks are used in making payments, and a receipt as such is a superfluity when payment is made by check. Hence, we would print on the bottom of the statement "Detach check and keep statement—no receipt required." The check when returned through the bank is ample receipt and will correspond with the amount as entered in the cash book, as the account apears in the ledger and as shown by the bills on file. When returned, the checks should be kept alphabetically in some filing device. It is advisable that the bank account be




"settled" or balanced at least once a month and the returned checks carefully checked off and filed at once. If one prefers to have a receipt returned in the old way he will simply make that request at the bottom of the statement instead of the wording given above. In fact, the form of printing as well as the outlines of this new remittance blank can be varied at will to suit circumstances or fit into any business system. Thus it may be arranged as a voucher, ordinary note heading, statement, etc. The great advantage is in having the check, remittance blank and envelope combined in one piece in such manner as to be quickly and easily folded and sealed; thus making one printed blank take the place of three separate articles. Also in the fact that in making up the account and drawing the check, the whole matter is in plain view and on one piece of paper—reducing errors to a minimum.

(964) VOUCHER RECORD.

(965) VOUCHER REGISTER.

A book of record in which are entered accounts payable, with voucher numbers, and with the proper distribution to the accounts to which the items relate.





A purchase record.
An accounts payable record.

(966) VOUCHER RECORD FOR COTTON MANUFACTURING BUSINESS.

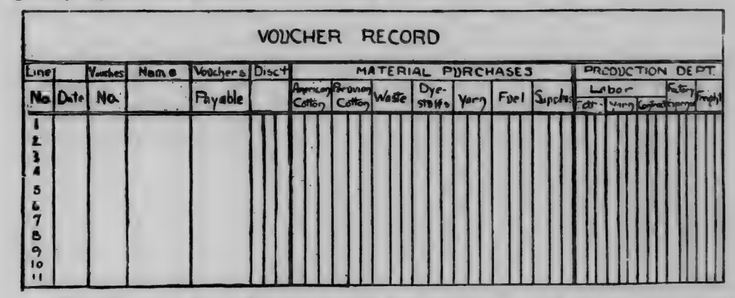
The purpose of the Voucher Record, as its name suggests, is to record the audited vouchers, their numbers and amounts; and to distribute these amounts to the accounts to which they belong, which is done by the use of columns.

The arrangement of such a record should be made with the idea to introduce these columns for such expenditures as will come at frequent intervals during the month, and to place them in such relation as will bring together those accounts belonging to separate departments.

In order not to encumber the form with unused space, columns should be provided only for those accounts which have four or more entries per month. For those entries for which no columns have been established a "Sundry" column should be arranged, with explanation and folio columns for indicating the accounts to which they are to be charged.

Careful consideration should be given to the building of a Voucher Record; for by proper arrangement, specific disbursements may be aggregated according to their purposes, so that, at the end of a given period it is possible to bring together the expenditures of the different departments in such relation as will enable a statement to be made, which is easy to compile, simple, comprehensive, and at the same time is absolutely the most explicit analysis of the disbursements that can be secured.

In devising a Voucher Record form, it will be found that a loose-leaf sheet will give the best results, as this permits current work to be carried in a temporary binder, which when completed is transferred to a permanent holder. This method will reduce the size and weight of the book most used to a minimum; an item of small consideration apparently, but one that will greatly lighten the manual labor of the voucher clerk.

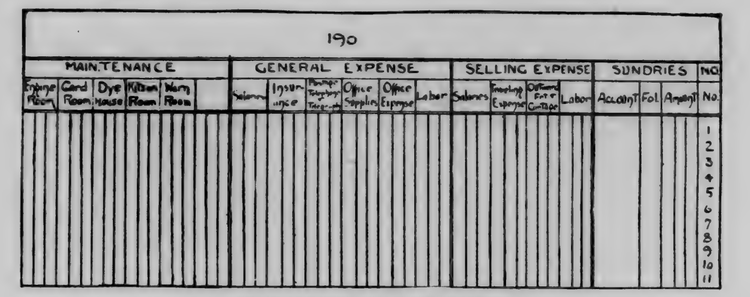



The Voucher Record submitted is intended for use by a firm engaged in preparing raw cotton for spinning purposes, manufacturing both white and colored stock. It also dyes, twists and spools cotton yarns which are purchased in a finished state.

In planning this record I have endeavored to follow the rule previously

laid down; arranging the columns so that accounts are brought together in their proper relation, and providing them only for those which have four or more entries per month.

The distribution columns are divided into five general heads; each being subdivided into the accounts belonging to them, the ledger headings following the subdivisions. The latter must follow each other through the book in the same order as given in the record, so that the proper grouping may be obtained in making statements.




EXPLANATION OF THE RECORD.

The total of the "Voucher Payable" column is credited, at the end of the month, to an account of the same name in the general ledger.

Vouchers are entered in this column and distributed to the sections to which they belong, date and voucher numbers being placed in the columns provided for them.

(When vouchers are paid, the amount of their checks are entered in the cash book, or the check register, in a column representing "Vouchers Payable," and its total is a monthly charge to same. The balance of the account represents the amount of vouchers unpaid.)

The Discount column is used or not, according as the firm may or may not care to know the amount gained by discounts from bills for cash.

MATERIAL PURCHASES.

This section embraces all purchases for consumption during the course of manufacture; being the raw materials which enter directly into the goods, and supplies required for the operation of the mill.

The columns are all self-explanatory, each account being charged with its own particular class of goods; while supplies are all lumped in one account.

The accounts are also charged, through the record, with all freight and cartage paid on the stock. The goods are placed in storage and delivered only on requisition, and the accounts are credited with consumption at prices which include these charges, so that the balances on the ledger show the actual cost value of those on hand.

This method of treatment gives perpetual inventories of all stock in storage, and removes the necessity of taking stock at closing time.





Occasional inventories for checking purposes may be made at any time to verify the book records.

Fuel consumption is reported weekly by the engineer's department, and the account credited monthly with its value.

PRODUCTION DEPARTMENT.

This section shows the cost of labor expended in manufacturing the product. The first three columns represent productive labor, or that actually consumed in making the goods.

The first shows the value of labor put on cotton products; and is a charge to Cotton Manufacturing account.

The second represents amounts on the pay roll for working up yarns.

Contract Labor is for showing amounts paid out by this firm to others for work done on our yarns; it being cheaper to have it done outside.

These two totals are charges to Yarn Manufacturing account, and the value of the third column is chiefly statistical, as it shows the totals of this class of work separate from that paid out directly by us.

MAINTENANCE.

The Maintenance or Repairs section is divided into six heads, as the management desires to know the cost of each department separately.

As these produce different classes of goods, each requiring their own particular kind of machinery, together with individual rooms for their production, this is the best method, as it gives the cost of maintaining each separate and distinct; which admits of the charges being made where they properly belong, and to be distributed to the cost of the goods that should bear them.

Engine Room Maintenance account is charged with all expenses of this nature for both engine and boiler room.

Miscellaneous repairs are those which can not be allotted to any particular department.

As we rent the building occupied no provision is needed for Building Maintenance. Replacements made by us are charged to the owner through the sundries section; and alterations or ordinary repairs are charged to the room in which they occur, or are placed in Miscellaneous.

The other columns explain themselves, and are a part of the total cost of the class of goods produced in those rooms.

It would have been better to bring together the columns for Engine Room and Miscellaneous Repairs, instead of having them so widely separated, as these expenses have to be pro-rated to the various lines of output on a basis of the wages paid for the productive labor on them.

GENERAL AND SELLING EXPENSES.

These sections, also called Administrative and Distribution Expenses are self-explanatory, the accounts provided being for the purpose of giving information that is chiefly of statistical and comparative value.

They clearly separate the expense of administering the business from that of distributing the goods, and give opportunity to see that there are no undue increases in the cost of either.

SUNDRIES SECTION.

This has been provided to take care of all entries for which there is no column. It was arranged with columns for showing names of the account to which the charges are to be made, posting folios and amounts, thus giving full information in regard to every item.

At the end of the month it can be recapitulated, which will necessitate but one posting for each account.

The Voucher Record (or record of accounts payable) is not used in all respects in the same way as a purchase record, for the reason that whereas a purchase record is usually devoted to a record of goods purchased, the voucher record covers not only goods purchased but expenditures of whatever nature.

## (969) VOUCHER SYSTEM.

The Voucher System consists of a record of accounts payable, arranged with columns for the distribution of purchases to their proper departments; a record of the payment of such accounts; and a form of voucher which accompanies the payment.

Much has been said for and against the voucher system; and, having had considerable experience with such a system, I want to say that in my opinion, it is an essential record with a concern doing anything like a large business.

The method that I will attempt to describe is used by one of the largest wholesale and retail coal concerns in the south, having six or seven mines, five commissaries and four retail yards.

The voucher record and the voucher itself does not differ much from those that appear so often in text books and other publications. As the invoices come to the book-keeper, he files them in a common paper folder, alphabetically, except, of course, bills that are payable upon reaching his desk. About the tenth of the month succeeding the purchase, he assorts his invoices and statements, verifying their correctness—then he is ready to make the voucher. Instead of making only one, he makes a carbon copy, to which are attached the invoices or any other authority for making the voucher. An impression copy is then taken of the original, which is made with indelible pencil, to prevent any change or alteration. The vouchers and all papers supporting same are passed to the chief clerk, who approves them as to their correctness; he in turn passes them to the general manager, who approves for payment. The duplicates, with all papers attached, are passed back to the book-keeper, who has already recorded them in his voucher record, numbering each as recorded, the account to which it is chargeable is shown on the duplicate. The duplicates are then filed in a wooden cabinet, made for that purpose, in numerical order. On the outside is shown what month's

# REDUCTION RATIO

# 28:1

2.5 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

2.0 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890

1.5 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890

# PM-MGP 13"x18"
# METRIC GENERAL PURPOSE TARGET
# PHOTOGRAPHIC

200 mm

150 mm

100 mm

A5

A4

A3

1.0 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890

1.5 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

2.0 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

2.5 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

## PRECISION℠ RESOLUTION TARGETS

Century

1303 Geneva Avenue
St. Paul, MN 55119

4.5 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

3.5 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890

3.0 mm — ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890

# REGISTER OF VOUCHERS, GOLD AND COPPER MINING CO.

GOLD AND COPPER MINING CO.

| VOUCHER NUMBER | DATE OF VOUCHER | IN FAVOR OF | LABOR Blank | LEDGER ACCOUNTS Debits 1 | LEDGER ACCOUNTS Credits 2 | ACCOUNTS PAYABLE Amount Cr. 3 | ACCOUNTS PAYABLE Check No. | ACCOUNTS PAYABLE Date Paid | OPERATING EXPENSE Powder and Fuse Dr. 4 | OPERATING EXPENSE Shaft Expense Dr. 5 | OPERATING EXPENSE Supplies Dr. 6 | OPERATING EXPENSE Labor Dr. 7 | GENERAL MINING EXPENSE Rent, Taxes, Insurance Dr. 8 | GENERAL MINING EXPENSE Light, Water, Power Materials Dr. 9 | GENERAL MINING EXPENSE Light, Water, Power Labor Dr. 10 | GENERAL MINING EXPENSE Mach'y. and Tool Repairs Dr. 11 | GENERAL MINING EXPENSE Real Estate Repairs Dr. 12 | GENERAL MINING EXPENSE Assay Office Expense Dr. 13 | GENERAL MINING EXPENSE Sundry Expense Dr. 14 | REDUCING EXPENSE Materials Dr. 15 | REDUCING EXPENSE Mach'y. and Tool Repairs Dr. 16 | REDUCING EXPENSE Labor Dr. 17 | REDUCING EXPENSE Sundry Expense Dr. 18 | PACKING AND SHIPPING Supplies Dr. 19 | PACKING AND SHIPPING Labor Dr. 20 | SELLING AND MANAGEMENT EXPENSE Office Expense Dr. 21 | SELLING AND MANAGEMENT EXPENSE Traveling Expense Dr. 22 | SELLING AND MANAGEMENT EXPENSE Advertising Expense Dr. 23 | SELLING AND MANAGEMENT EXPENSE Postage Dr. 24 | SELLING AND MANAGEMENT EXPENSE Internal Revenue Dr. 25 | SELLING AND MANAGEMENT EXPENSE Legal Expense Dr. 26 | SELLING AND MANAGEMENT EXPENSE Stationery and Printing Dr. 27 | SELLING AND MANAGEMENT EXPENSE Freight and Cartage Dr. 28 | SELLING AND MANAGEMENT EXPENSE Commissions Dr. 29 | SELLING AND MANAGEMENT EXPENSE Sundry Expense Dr. 30 | PAYMENTS ACCOUNT PLANT Dr. 31 | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Totals to Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Totals this Month | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# REDUCTION RATIO

# 14:1

2.5 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

2.0 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

1.5 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

# PM-MGP 13″x18″
# METRIC GENERAL PURPOSE TARGET
# PHOTOGRAPHIC

200 mm

150 mm

100 mm

A3

A4

A5

1.0

1.1

1.25

1.4

1.6

1.8

2.0

2.2

2.5

2.8

3.2

3.6

4.0

4.5

5.0

1.0 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

1.5 mm

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abcdefghijklmnopqrstuvwxyz
1234567890

2.0 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

2.5 mm

## PRECISION℠ RESOLUTION TARGETS

Century

A&P

1303 Geneva Avenue
St. Paul, MN 55119

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

4.5 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

3.5 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

3.0 mm

# REGISTER OF VOUCHERS, GOLD AND COPPER MINING CO.

| VOUCHER NUMBER | DATE OF VOUCHER | IN FAVOR OF | LEDGER FOLIO | LEDGER ACCOUNTS Debits 1 | LEDGER ACCOUNTS Credits 2 | ACCOUNTS PAYABLE Amount Cr. 3 | ACCOUNTS PAYABLE Check Line | ACCOUNTS PAYABLE Date Paid | OPERATING EXPENSE Powder and Fuse Dr. 4 | OPERATING EXPENSE Shaft Expense Dr. 5 | OPERATING EXPENSE Supplies Dr. 6 | OPERATING EXPENSE Labor Dr. 7 | GENERAL MINING EXPENSE Rent, Taxes, Insurance Dr. 8 | GENERAL MINING EXPENSE Light, Water, Power Materials Dr. 9 | GENERAL MINING EXPENSE Light, Water, Power Labor Dr. 10 | GENERAL MINING EXPENSE Mach'y. and Tool Repairs Dr. 11 | GENERAL MINING EXPENSE Real Estate Repairs Dr. 12 | GENERAL MINING EXPENSE Assay Office Expense Dr. 13 | GENERAL MINING EXPENSE Sundry Expense Dr. 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Totals to Date** | | | | | | | | | | | | | | | | | |
| | | **Totals this Month** | | | | | | | | | | | | | | | | | |

COPPER MINING CO.

GOLD AND COPPER MINING CO.

| GENERAL MINING EXPENSE | | | | | REDUCING EXPENSE | | | | PACKING AND SHIPPING | | SELLING AND MANAGEMENT EXPENSE | | | | | | | | | PAYMENTS ACCOUNT OF PURCHASE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power<br>Labor<br>Dr. 10 | Mach'y. and Tool Repairs<br>Dr. 11 | Real Estate Repairs<br>Dr. 12 | Assay Office Expense<br>Dr. 13 | Sundry Expense<br>Dr. 14 | Materials<br>Dr. 15 | Mach'y. and Tool Repairs<br>Dr. 16 | Labor<br>Dr. 17 | Sundry Expense<br>Dr. 18 | Supplies<br>Dr. 19 | Labor<br>Dr. 20 | Office Expense<br>Dr. 21 | Traveling Expense<br>Dr. 22 | Advertising Expense<br>Dr. 23 | Postage<br>Dr. 24 | Internal Revenue<br>Dr. 25 | Legal Expense<br>Dr. 26 | Stationery and Printing<br>Dr. 27 | Freight and Cartage<br>Dr. 28 | Commissions<br>Dr. 29 | Sundry Expense<br>Dr. 30 | Machinery and ... Furniture and ... Real Estate, Dr. 31 |

# GOLD AND COPPER MINING CO.

| REDUCING EXPENSE | | | | PACKING AND SHIPPING | | SELLING AND MANAGEMENT EXPENSE | | | | | | | | | PAYMENTS ACCOUNT OF PLANT | SUNDRIES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Materials Dr. 15 | Mach'y. and Tool Repairs Dr. 16 | Labor Dr. 17 | Sundry Expense Dr. 18 | Supplies Dr. 19 | Labor Dr. 20 | Office Expense Dr. 21 | Traveling Expense Dr. 22 | Advertising Expense Dr. 23 | Postage Dr. 24 | Internal Revenue Dr. 25 | Legal Expense Dr. 26 | Stationery and Printing Dr. 27 | Freight and Cartage Dr. 28 | Commissions Dr. 29 | Sundry Expense Dr. 30 | Machinery and Tools Claims, Maps and Plats Furniture and Fixtures Real Estate, Etc., Etc Dr. 31 | ACCOUNT | Ledger Folio | AMOUNT |

FOLDOUT TOO LARGE TO BE FILMED AS A WHOLE, FILMED IN SECTIONS ONLY

# VOUCHER RECORD

| 191 Month | Day | Voucher No. | Fund Paid From | TO WHOM PAID | GENERAL LEDGER Account | Ck. | Amount | GENERAL EXPENSES Adver-tising | Care of Grounds | Heat and Light | Insurance | Postage | Printing | Travel Expense | Officers Salaries | OPERATIVE EXPENSES Farm Labor | Farm Supplies | Dairy Labor | Dairy Supplies | Horticulture Labor | Horticulture Supplies | Poultry Labor | Poultry Feed | Horse Labor | Horse |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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# DISBURSEMENTS OF COLLEGE

| OPERATIVE EXPENSES | | |

# DISBURSEMENTS OF COLLEGE

| laries of ployees | EDUCATIONAL | | | | MAINTENANCE OF PLANT | | | | | | | | | | | NEW PLANT AND EQUIPMENT | | | | Vouchers Payable Cr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Salaries of Instructors | Apparatus | Supplies | Library Books | Repair Material "Stock" | Main Building | Chemical L'bor't'y | Grove Cottage | Cottage No. 1 | Cottage No. 2 | Cottage No. 3 | New Dor'itory | Old House | Farm House | Farm Barns | Ag'l Labor't'ry | | Title | Ck. | Amount | |
| | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | |

vouchers the cabinet contains. So, in order to locate a certain voucher or payment you have only to refer to the record for the number, and the rest is easy.

The original is passed to the cashier, who issues check; the vice president will only sign when accompanied by the original voucher properly approved. The check and voucher is then mailed to the party in whose favor it is drawn. Upon return of the original properly receipted, it is turned over to the cashier, who files it away numerically, entirely separate from the duplicate. At intervals he checks voucher record with the original receipted vouchers to see that they are all returned; if any are missing, he prepares a copy and sends it to the payee with request to receipt and return. His file is then complete.

At the end of the month or when the books are to be closed for any particular month, the voucher record is added and posted to the respective accounts; the total of voucher record is credited to voucher account in the general ledger, and total of disbursing cash book is posted to debit of voucher account in the general ledger. The balance in voucher account will always be a credit, for the reason that the vouchers are not paid in the same month for which they are issued. Therefore, the credit balance simply represents unpaid vouchers. After the trial balance is taken, we prove the balance in voucher account, which is very simple and requires about ten or fifteen minutes.

Say, for instance, it is the 20th of February, and the general ledger shows:

| | |
|---|---|
| Balance on January 31st | $46,539.00 |
| Disbursing cash book shows on February 20th | $63,789.12 |
| This amount may include vouchers for the months of December, January and February, hence we deduct February vouchers amounting to | 20,642.19 |
| | $43,146.93 |

UNPAID VOUCHERS

| | | | | |
|---|---|---|---|---|
| No. 165. | Dec. | Jay & Co. | $ 378.27 | |
| No. 323. | Dec. | A. Jett | 49.50 | |
| No. 39. | Jan. | W. Jones | 927.90 | |
| No. 127. | Jan. | F. Wilson | 175.83 | |
| No. 192. | Jan. | S. Smith | 750.00 | |
| No. 211. | Jan. | Brown & Co. | 1,110.57 | 3,392.07 |
| | | | | $46,539.00 |

We have not only proven the accuracy of the voucher record, but also the disbursing cash book up to February 20. If I wanted to ignore the disbursing cash book after February 1, it would be necessary for me to list all unpaid vouchers, which would consume some time; as I explained at the beginning, January vouchers would not be issued until about February 10, or at least 80 per cent. of them would not.

The only objection that I have ever heard uttered against this system, and that carries any weight at all, is, how can I tell how much goods I have purchased from J. H. Hemphill & Co. for the last twelve months, without considerable time wasted in going through the voucher record. This can be done in about five minutes, and get out the papers, too. Put this against your cumbersome ledger accounts, your overworked book-keeper, or an unnecessary expense of $1,200 per annum.—*C. R. Shannon.*

## (970) UNPAID VOUCHERS.

The treatment of unpaid or partially paid vouchers on the voucher record, and the record of maturities appears to be responsible for a considerable amount of dissatisfaction with the voucher system generally.

A general plan for the use of the voucher system where it is the custom to make payments on account, or where discounts are not taken advantage of, is as follows:—

First, prepare a loose-leaf form of voucher record. Then, as each page of entries is completed by full payment being made, the pages may be removed, only those pages containing unpaid accounts remaining in the binder. This is a very convenient plan because many pages may be completed, while back pages may remain uncompleted, so that only those pages containing unpaid accounts will have to be dealt with.

Bring forward unpaid monthly balances in the monthly columns provided for them.

At the end of each month foot "Accounts Payable" and "Amount Paid" column for the month and enter unpaid balances in the month to which they belong. As these amounts are paid, enter the credits in the columns provided for the month in which the balance is brought forward; also enter the page number, showing where the original entry was made.

VOUCHER AND DISBURSEMENT REGISTER

| DATE | NAME | ON VOUCHERS PAYABLE ON | | | | | | | | | | REMARKS | UNPAID VOUCHERS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |

This provides an exhibit each month of how much remains unpaid and for how long it has remained unpaid.

A cross footing of unpaid balances plus the difference between "Accounts Payable" and "Amount Paid" columns should agree with the balance of Accounts, or Vouchers Payable account.





## (971) WAGES, TABLE OF.

The following table may be found of use to those having to make up pay rolls:

| Days | $2 | $2½ | $3 | $3½ | $4 | $4½ | $5 | $5½ | $6 | $6½ | $7 | $7½ | $8 | $8½ | $9 | $9½ | $10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ¼ | .08 | .11 | .13 | .15 | .17 | .19 | .21 | .23 | .25 | .27 | .29 | .31 | .33 | .35 | .38 | .40 | .42 |
| ½ | .17 | .21 | .25 | .29 | .33 | .38 | .42 | .46 | .50 | .54 | .58 | .63 | .67 | .71 | .75 | .79 | .83 |
| ¾ | .25 | .31 | .38 | .44 | .50 | .56 | .63 | .69 | .75 | .81 | .88 | .94 | 1.00 | 1.06 | 1.13 | 1.19 | 1 25 |
| 1 | .33 | .42 | .50 | .58 | .67 | .75 | .83 | .92 | 1.00 | 1.08 | 1.17 | 1.25 | 1.33 | 1.42 | 1.50 | 1.58 | 1 67 |
| 1¼ | .42 | 52 | .63 | .73 | .83 | .94 | 1.04 | 1.15 | 1.25 | 1.35 | 1.46 | 1.55 | 1.67 | 1.77 | 1 88 | 1 98 | 2.08 |
| 1½ | .50 | 63 | .75 | .88 | 1.00 | 1.13 | 1.25 | 1.38 | 1.50 | 1.63 | 1.75 | 1.88 | 2.00 | 2.18 | 2.25 | 2.38 | 2.50 |
| 1¾ | .58 | .73 | .88 | 1.02 | 1.17 | 1.31 | 1.46 | 1.60 | 1 75 | 1.90 | 2.04 | 2.19 | 2.33 | 2.48 | 2.63 | 2.77 | 2 92 |
| 2 | .67 | .83 | 1 00 | 1 17 | 1 33 | 1.50 | 1.67 | 1.83 | 2.00 | 2.17 | 2.33 | 2.50 | 2 67 | 2.83 | 3.00 | 3 17 | 3 33 |
| 2¼ | .75 | .94 | 1.13 | 1 31 | 1.50 | 1 69 | 1.87 | 2.06 | 2.25 | 2.44 | 2.63 | 2.81 | 3 00 | 3.19 | 3.37 | 3.56 | 3 75 |
| 2½ | .83 | 1.04 | 1.25 | 1 46 | 1 67 | 1 87 | 2.08 | 2.29 | 2.50 | 2.71 | 2.92 | 3 13 | 3 33 | 3.54 | 3.75 | 3.96 | 4 17 |
| 2¾ | .92 | 1 15 | 1.38 | 1.60 | 1 83 | 2.06 | 2.29 | 2.52 | 2.75 | 2.98 | 3.21 | 3.44 | 3.67 | 3.90 | 4.13 | 4.35 | 4 58 |
| 3 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2 25 | 2.50 | 2.75 | 3.00 | 3.25 | 3.50 | 3.75 | 4.00 | 4.25 | 4.50 | 4.75 | 5 00 |
| 3¼ | 1.08 | 1.35 | 1.62 | 1.90 | 2.17 | 2.44 | 2.71 | 2.98 | 3.25 | 3.52 | 3.79 | 4.06 | 4.33 | 4.60 | 4.88 | 5.15 | 5.42 |
| 3½ | 1.17 | 1 46 | 1 75 | 2 04 | 2.33 | 2.63 | 2.92 | 3.21 | 3.50 | 3.79 | 4.08 | 4.38 | 4.67 | 4.96 | 5.25 | 5.54 | 5.83 |
| 3¾ | 1.25 | 1.56 | 1.88 | 2.19 | 2.50 | 2.81 | 3.13 | 3.44 | 3.75 | 4.06 | 4.37 | 4 69 | 5.00 | 5.31 | 5.62 | 5 94 | 6.25 |
| 4 | 1 33 | 1.67 | 2.00 | 2.33 | 2.67 | 3.00 | 3.33 | 3.67 | 4.00 | 4.33 | 4.67 | 5.00 | 5.33 | 5.67 | 6.00 | 6 33 | 6.67 |
| 4¼ | 1.42 | 1.77 | 2 13 | 2.48 | 2.83 | 3.19 | 3.54 | 3.90 | 4.25 | 4.60 | 4.96 | 5.31 | 5 67 | 6.02 | 6.37 | 6.73 | 7.08 |
| 4½ | 1.50 | 1 87 | 2.25 | 2.63 | 3.00 | 3.27 | 3.75 | 4.13 | 4 50 | 4.88 | 5.25 | 5.63 | 6.00 | 6.37 | 6.75 | 7.13 | 7 49 |
| 4¾ | 1.58 | 1 98 | 2.37 | 2.77 | 3.17 | 3.56 | 3.96 | 4.35 | 4.75 | 5.15 | 5.54 | 5 94 | 6.33 | 6.73 | 7.13 | 7 53 | 7.92 |
| 5 | 1.67 | 2 08 | 2.50 | 2.92 | 3.33 | 3.75 | 4.17 | 4.58 | 5.00 | 5 42 | 5.83 | 6.25 | 6.67 | 7.08 | 7.50 | 7.92 | 8.33 |
| 5¼ | 1.75 | 2.19 | 2 63 | 3 06 | 3.50 | 3 94 | 4.38 | 4.81 | 5.25 | 5.68 | 6.13 | 6.56 | 7.00 | 7.44 | 7.88 | 8.31 | 8.75 |
| 5½ | 1 83 | 2.29 | 2.75 | 3.21 | 3.67 | 4 13 | 4.58 | 5 04 | 5.50 | 5.95 | 6.42 | 6.88 | 7 33 | 7 79 | 8.25 | 8.71 | 9 17 |
| 5¾ | 1.92 | 2 40 | 2 88 | 3.35 | 3.83 | 4.31 | 4.79 | 5.27 | 5.75 | 6.22 | 6.71 | 7.19 | 7.67 | 8.15 | 8.63 | 9.10 | 9.58 |
| 6 | 2 00 | 2.50 | 3 00 | 3.50 | 4 00 | 4.50 | 5.00 | 5.50 | 6.00 | 6 50 | 7.00 | 7.50 | 8.00 | 8.50 | 9.00 | 9.50 | 10.00 |
| Hour. | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | 10 | 11 | 12 | 12 | 13 | 14 | 15 | 16 | 17 |

| Days | $11 | $12 | $13 | $14 | $15 | $16 | $17 | $18 | $19 | $20 | $21 | $22 | $23 | $25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ¼ | .46 | .50 | .54 | .58 | .63 | .67 | .71 | .75 | .79 | .84 | .88 | .92 | .96 | 1.06 |
| ½ | .92 | 1.00 | 1.08 | 1.17 | 1.25 | 1.33 | 1.42 | 1 50 | 1 57 | 1.67 | 1.75 | 1.83 | 1.92 | 2 13 |
| ¾ | 1.37 | 1.50 | 1.62 | 1.78 | 1.88 | 2.00 | 2.12 | 2.25 | 2 36 | 2 41 | 2 63 | 2.75 | 2.88 | 3 19 |
| 1 | 1 83 | 2.00 | 2.17 | 2 33 | 2.50 | 2.67 | 2.83 | 3.00 | 3.17 | 3.33 | 3.50 | 3.67 | 3.83 | 4.17 |
| 1¼ | 2 29 | 2.50 | 2 71 | 2 92 | 3.13 | 3.33 | 3 54 | 3 75 | 3 96 | 4 17 | 4.37 | 4.58 | 4.79 | 5 21 |
| 1½ | 2.75 | 3 00 | 3 25 | 3.50 | 3 75 | 4.00 | 4.25 | 4.50 | 4 75 | 5 00 | 5.25 | 5 50 | 5.75 | 6 25 |
| 1¾ | 3 21 | 3.50 | 3 79 | 4.08 | 4.38 | 4.67 | 4.96 | 5.25 | 5.54 | 5.83 | 6.13 | 6.42 | 6.71 | 7.29 |
| 2 | 3 67 | 4.00 | 4.33 | 4.67 | 5.00 | 5.33 | 5.67 | 6.00 | 6.33 | 6 67 | 7 00 | 7.33 | 7.67 | 8.33 |
| 2¼ | 4.13 | 4.50 | 4 87 | 5.25 | 5.63 | 6.00 | 6.38 | 6.75 | 7.12 | 7.50 | 7.87 | 8.25 | 8.62 | 9.37 |
| 2½ | 4.58 | 5.00 | 5.42 | 5 83 | 6.25 | 6.67 | 7.08 | 7.50 | 7.92 | 8.33 | 8.75 | 9.17 | 9 58 | 10.42 |
| 2¾ | 5.04 | 5.50 | 5.96 | 6.42 | 6.88 | 7.33 | 7.79 | 8.25 | 8.71 | 9.17 | 9.63 | 10.08 | 10.54 | 11 46 |
| 3 | 5.50 | 6 00 | 6.50 | 7.00 | 7.50 | 8.00 | 8.50 | 9.00 | 9.50 | 10.00 | 10.50 | 11 00 | 11.50 | 12.50 |
| 3¼ | 5.96 | 6 50 | 7.04 | 7.58 | 8.13 | 8.67 | 9.21 | 9.75 | 10.29 | 10 83 | 11.37 | 11.92 | 12.46 | 13.54 |
| 3½ | 6 42 | 7.00 | 7.58 | 8.17 | 8.75 | 9.33 | 9.92 | 10.50 | 11.08 | 11.67 | 12.25 | 12.83 | 13.42 | 14.58 |
| 3¾ | 6 88 | 7.50 | 8.13 | 8.75 | 9 38 | 10.00 | 10 63 | 11.25 | 11 88 | 12 50 | 13.13 | 13.75 | 14.37 | 15 62 |
| 4 | 7.33 | 8.00 | 8 67 | 9.33 | 10.00 | 10.67 | 11 33 | 12 00 | 12.67 | 13.33 | 14.00 | 14.67 | 15 33 | 16.67 |
| 4¼ | 7.79 | 8.50 | 9 21 | 9 92 | 10 63 | 11.33 | 12.04 | 12.75 | 13 46 | 14.17 | 14.87 | 15.58 | 16.29 | 17.71 |
| 4½ | 8.25 | 9.00 | 9.75 | 10.50 | 11.25 | 12.00 | 12.75 | 13 50 | 14 25 | 15.00 | 15.75 | 16 50 | 17.25 | 18.75 |
| 4¾ | 8 71 | 9 50 | 10 29 | 11.08 | 11 88 | 12.67 | 13 46 | 14.25 | 15.04 | 15.83 | 16.63 | 17.42 | 18.21 | 19.79 |
| 5 | 9.17 | 10.00 | 10.83 | 11.67 | 12.50 | 13.33 | 14.17 | 15.00 | 15.83 | 16.67 | 17.50 | 18.33 | 19.17 | 20.83 |
| 5¼ | 9.63 | 10.50 | 11.37 | 12 25 | 13.13 | 14.00 | 14.88 | 15 75 | 16.62 | 17.50 | 18.37 | 19.25 | 20.12 | 21.87 |
| 5½ | 10.08 | 11.00 | 11.92 | 12.83 | 13.75 | 14.67 | 15 58 | 16.50 | 17.42 | 18.33 | 19.25 | 20.17 | 21.08 | 22.92 |
| 5¾ | 10.54 | 11.50 | 12.46 | 13.42 | 14.38 | 15.33 | 16.29 | 17.25 | 18.21 | 19.17 | 20 13 | 21.08 | 22.04 | 23.96 |
| 6 | 11.00 | 12 00 | 13.00 | 14 00 | 15.00 | 16.00 | 17.00 | 18.00 | 19.00 | 20.00 | 21 00 | 22 00 | 23.00 | 25.00 |
| Hour. | 18 | 20 | 22 | 23 | 25 | 27 | 28 | 30 | 32 | 33 | 35 | 37 | 38 | 42 |

## (972) WAGON FACTORY COST ACCOUNTING.

The system outlined is arranged to meet the requirements of a company which employs from 150 to 200 men and is engaged in the manufacture of a

The only objection that I have ever heard uttered against this system, and that carries any weight at all, is, how can I tell how much goods I have purchased from J. H. Hemphill & Co. for the last twelve months, without considerable time wasted in going through the voucher record. This can be done in about five minutes, and get out the papers, too. Put this against your cumbersome ledger accounts, your overworked book-keeper, or an unnecessary expense of $1,200 per annum.—*C. R. Shannon.*

## (970) UNPAID VOUCHERS.

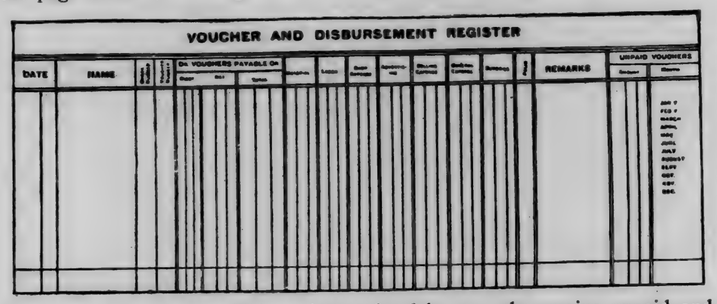
The treatment of unpaid or partially paid vouchers on the voucher record, and the record of maturities appears to be responsible for a considerable amount of dissatisfaction with the voucher system generally.

A general plan for the use of the voucher system where it is the custom to make payments on account, or where discounts are not taken advantage of, is as follows:—

First, prepare a loose-leaf form of voucher record. Then, as each page of entries is completed by full payment being made, the pages may be removed, only those pages containing unpaid accounts remaining in the binder. This is a very convenient plan because many pages may be completed, while back pages may remain uncompleted, so that only those pages containing unpaid accounts will have to be dealt with.

Bring forward unpaid monthly balances in the monthly columns provided for them.

At the end of each month foot "Accounts Payable" and "Amount Paid" column for the month and enter unpaid balances in the month to which they belong. As these amounts are paid, enter the credits in the columns provided for the month in which the balance is brought forward; also enter the page number, showing where the original entry was made.




This provides an exhibit each month of how much remains unpaid and for how long it has remained unpaid.

A cross footing of unpaid balances plus the difference between "Accounts Payable" and "Amount Paid" columns should agree with the balance of Accounts, or Vouchers Payable account.





## (971) WAGES, TABLE OF.

The following table may be found of use to those having to make up pay rolls:

| Days | $2 | $2½ | $3 | $3½ | $4 | $4½ | $5 | $5½ | $6 | $6½ | $7 | $7½ | $8 | $8½ | $9 | $9½ | $10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ¼ | .08 | .11 | .13 | .15 | .17 | .19 | .21 | .23 | .25 | .27 | .29 | .31 | .33 | .35 | .38 | .40 | .42 |
| ½ | .17 | .21 | .25 | .29 | .33 | .38 | .42 | .46 | .50 | .54 | .58 | .63 | .67 | .71 | .75 | .79 | .83 |
| ¾ | .25 | .31 | .38 | .44 | .50 | .56 | .63 | .69 | .75 | .81 | .88 | .94 | 1.00 | 1.06 | 1.13 | 1.19 | 1.25 |
| 1 | .33 | .42 | .50 | .58 | .67 | .75 | .83 | .92 | 1.00 | 1.08 | 1.17 | 1.25 | 1.33 | 1.42 | 1.50 | 1.58 | 1.67 |
| 1¼ | .42 | .52 | .63 | .73 | .83 | .94 | 1.04 | 1.15 | 1.25 | 1.35 | 1.46 | 1.55 | 1.67 | 1.77 | 1.88 | 1.98 | 2.08 |
| 1½ | .50 | .63 | .75 | .88 | 1.00 | 1.13 | 1.25 | 1.38 | 1.50 | 1.63 | 1.75 | 1.88 | 2.00 | 2.18 | 2.25 | 2.38 | 2.50 |
| 1¾ | .58 | .73 | .88 | 1.02 | 1.17 | 1.31 | 1.46 | 1.60 | 1.75 | 1.90 | 2.04 | 2.19 | 2.33 | 2.48 | 2.63 | 2.77 | 2.92 |
| 2 | .67 | .83 | 1.00 | 1.17 | 1.33 | 1.50 | 1.67 | 1.83 | 2.00 | 2.17 | 2.33 | 2.50 | 2.67 | 2.83 | 3.00 | 3.17 | 3.33 |
| 2¼ | .75 | .94 | 1.13 | 1.31 | 1.50 | 1.69 | 1.87 | 2.06 | 2.25 | 2.44 | 2.63 | 2.81 | 3.00 | 3.19 | 3.37 | 3.56 | 3.75 |
| 2½ | .83 | 1.04 | 1.25 | 1.46 | 1.67 | 1.87 | 2.08 | 2.29 | 2.50 | 2.71 | 2.92 | 3.13 | 3.33 | 3.54 | 3.75 | 3.96 | 4.17 |
| 2¾ | .92 | 1.15 | 1.38 | 1.60 | 1.83 | 2.06 | 2.29 | 2.52 | 2.75 | 2.98 | 3.21 | 3.44 | 3.67 | 3.90 | 4.13 | 4.35 | 4.58 |
| 3 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25 | 2.50 | 2.75 | 3.00 | 3.25 | 3.50 | 3.75 | 4.00 | 4.25 | 4.50 | 4.75 | 5.00 |
| 3¼ | 1.08 | 1.35 | 1.62 | 1.90 | 2.17 | 2.44 | 2.71 | 2.98 | 3.25 | 3.52 | 3.79 | 4.06 | 4.33 | 4.60 | 4.88 | 5.15 | 5.42 |
| 3½ | 1.17 | 1.46 | 1.75 | 2.04 | 2.33 | 2.63 | 2.92 | 3.21 | 3.50 | 3.79 | 4.08 | 4.38 | 4.67 | 4.96 | 5.25 | 5.54 | 5.83 |
| 3¾ | 1.25 | 1.56 | 1.88 | 2.19 | 2.50 | 2.81 | 3.13 | 3.44 | 3.75 | 4.06 | 4.37 | 4.69 | 5.00 | 5.31 | 5.62 | 5.94 | 6.25 |
| 4 | 1.33 | 1.67 | 2.00 | 2.33 | 2.67 | 3.00 | 3.33 | 3.67 | 4.00 | 4.33 | 4.67 | 5.00 | 5.33 | 5.67 | 6.00 | 6.33 | 6.67 |
| 4¼ | 1.42 | 1.77 | 2.13 | 2.48 | 2.83 | 3.19 | 3.54 | 3.90 | 4.25 | 4.60 | 4.96 | 5.31 | 5.67 | 6.02 | 6.37 | 6.73 | 7.08 |
| 4½ | 1.50 | 1.87 | 2.25 | 2.63 | 3.00 | 3.27 | 3.75 | 4.13 | 4.50 | 4.88 | 5.25 | 5.63 | 6.00 | 6.37 | 6.75 | 7.13 | 7.49 |
| 4¾ | 1.58 | 1.98 | 2.37 | 2.77 | 3.17 | 3.56 | 3.96 | 4.35 | 4.75 | 5.15 | 5.54 | 5.94 | 6.33 | 6.73 | 7.13 | 7.53 | 7.92 |
| 5 | 1.67 | 2.08 | 2.50 | 2.92 | 3.33 | 3.75 | 4.17 | 4.58 | 5.00 | 5.42 | 5.83 | 6.25 | 6.67 | 7.08 | 7.50 | 7.92 | 8.33 |
| 5¼ | 1.75 | 2.19 | 2.63 | 3.06 | 3.50 | 3.94 | 4.38 | 4.81 | 5.25 | 5.68 | 6.13 | 6.56 | 7.00 | 7.44 | 7.88 | 8.31 | 8.75 |
| 5½ | 1.83 | 2.29 | 2.75 | 3.21 | 3.67 | 4.13 | 4.58 | 5.04 | 5.50 | 5.95 | 6.42 | 6.88 | 7.33 | 7.79 | 8.25 | 8.71 | 9.17 |
| 5¾ | 1.92 | 2.40 | 2.88 | 3.35 | 3.83 | 4.31 | 4.79 | 5.27 | 5.75 | 6.22 | 6.71 | 7.19 | 7.67 | 8.15 | 8.63 | 9.10 | 9.58 |
| 6 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.50 | 8.00 | 8.50 | 9.00 | 9.50 | 10.00 |
| Hour. | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | 10 | 11 | 12 | 12 | 13 | 14 | 15 | 16 | 17 |

| Days | $11 | $12 | $13 | $14 | $15 | $16 | $17 | $18 | $19 | $20 | $21 | $22 | $23 | $25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ¼ | .46 | .50 | .54 | .58 | .63 | .67 | .71 | .75 | .79 | .84 | .88 | .92 | .96 | 1.06 |
| ½ | .92 | 1.00 | 1.08 | 1.17 | 1.25 | 1.33 | 1.42 | 1.50 | 1.57 | 1.67 | 1.75 | 1.83 | 1.92 | 2.13 |
| ¾ | 1.37 | 1.50 | 1.62 | 1.78 | 1.88 | 2.00 | 2.12 | 2.25 | 2.36 | 2.41 | 2.63 | 2.75 | 2.88 | 3.19 |
| 1 | 1.83 | 2.00 | 2.17 | 2.33 | 2.50 | 2.67 | 2.83 | 3.00 | 3.17 | 3.33 | 3.50 | 3.67 | 3.83 | 4.17 |
| 1¼ | 2.29 | 2.50 | 2.71 | 2.92 | 3.13 | 3.33 | 3.54 | 3.75 | 3.96 | 4.17 | 4.37 | 4.58 | 4.79 | 5.21 |
| 1½ | 2.75 | 3.00 | 3.25 | 3.50 | 3.75 | 4.00 | 4.25 | 4.50 | 4.75 | 5.00 | 5.25 | 5.50 | 5.75 | 6.25 |
| 1¾ | 3.21 | 3.50 | 3.79 | 4.08 | 4.38 | 4.67 | 4.96 | 5.25 | 5.54 | 5.83 | 6.13 | 6.42 | 6.71 | 7.29 |
| 2 | 3.67 | 4.00 | 4.33 | 4.67 | 5.00 | 5.33 | 5.67 | 6.00 | 6.33 | 6.67 | 7.00 | 7.33 | 7.67 | 8.33 |
| 2¼ | 4.13 | 4.50 | 4.87 | 5.25 | 5.63 | 6.00 | 6.38 | 6.75 | 7.12 | 7.50 | 7.87 | 8.25 | 8.62 | 9.37 |
| 2½ | 4.58 | 5.00 | 5.42 | 5.83 | 6.25 | 6.67 | 7.08 | 7.50 | 7.92 | 8.33 | 8.75 | 9.17 | 9.58 | 10.42 |
| 2¾ | 5.04 | 5.50 | 5.96 | 6.42 | 6.88 | 7.33 | 7.79 | 8.25 | 8.71 | 9.17 | 9.63 | 10.08 | 10.54 | 11.46 |
| 3 | 5.50 | 6.00 | 6.50 | 7.00 | 7.50 | 8.00 | 8.50 | 9.00 | 9.50 | 10.00 | 10.50 | 11.00 | 11.50 | 12.50 |
| 3¼ | 5.96 | 6.50 | 7.04 | 7.58 | 8.13 | 8.67 | 9.21 | 9.75 | 10.29 | 10.83 | 11.37 | 11.92 | 12.46 | 13.54 |
| 3½ | 6.42 | 7.00 | 7.58 | 8.17 | 8.75 | 9.33 | 9.92 | 10.50 | 11.08 | 11.67 | 12.25 | 12.83 | 13.42 | 14.58 |
| 3¾ | 6.88 | 7.50 | 8.13 | 8.75 | 9.38 | 10.00 | 10.63 | 11.25 | 11.88 | 12.50 | 13.13 | 13.75 | 14.37 | 15.62 |
| 4 | 7.33 | 8.00 | 8.67 | 9.33 | 10.00 | 10.67 | 11.33 | 12.00 | 12.67 | 13.33 | 14.00 | 14.67 | 15.33 | 16.67 |
| 4¼ | 7.79 | 8.50 | 9.21 | 9.92 | 10.63 | 11.33 | 12.04 | 12.75 | 13.46 | 14.17 | 14.87 | 15.58 | 16.29 | 17.71 |
| 4½ | 8.25 | 9.00 | 9.75 | 10.50 | 11.25 | 12.00 | 12.75 | 13.50 | 14.25 | 15.00 | 15.75 | 16.50 | 17.25 | 18.75 |
| 4¾ | 8.71 | 9.50 | 10.29 | 11.08 | 11.88 | 12.67 | 13.46 | 14.25 | 15.04 | 15.83 | 16.63 | 17.42 | 18.21 | 19.79 |
| 5 | 9.17 | 10.00 | 10.83 | 11.67 | 12.50 | 13.33 | 14.17 | 15.00 | 15.83 | 16.67 | 17.50 | 18.33 | 19.17 | 20.83 |
| 5¼ | 9.63 | 10.50 | 11.37 | 12.25 | 13.13 | 14.00 | 14.88 | 15.75 | 16.62 | 17.50 | 18.37 | 19.25 | 20.12 | 21.87 |
| 5½ | 10.08 | 11.00 | 11.92 | 12.83 | 13.75 | 14.67 | 15.58 | 16.50 | 17.42 | 18.33 | 19.25 | 20.17 | 21.08 | 22.92 |
| 5¾ | 10.54 | 11.50 | 12.46 | 13.42 | 14.38 | 15.33 | 16.29 | 17.25 | 18.21 | 19.17 | 20.13 | 21.08 | 22.04 | 23.96 |
| 6 | 11.00 | 12.00 | 13.00 | 14.00 | 15.00 | 16.00 | 17.00 | 18.00 | 19.00 | 20.00 | 21.00 | 22.00 | 23.00 | 25.00 |
| Hour. | 18 | 20 | 22 | 23 | 25 | 27 | 28 | 30 | 32 | 33 | 35 | 37 | 38 | 42 |

## (972) WAGON FACTORY COST ACCOUNTING.

The system outlined is arranged to meet the requirements of a company which employs from 150 to 200 men and is engaged in the manufacture of a

general line of farm and log wagons and contractors' bottom dump wagons. We have the cost accounting and pay roll keeping departments in charge of one clerk, making it easier for the cost-keeper to get into close touch with conditions in the factory.

When material is received, the receiving clerk makes a record of each item of the goods and this record is checked with the invoices for verification, thus calling immediate attention to any errors in the quantity or quality of goods received. In the case of lumber, an inspection sheet, Form 2, is made out in duplicate by the inspector and this sheet is used for verification with all lumber invoices. All invoices are then checked as to prices and extensions by the purchasing department and are entered on rough material stock ledger, Form 3-a. All material stock ledgers are kept by the stock-keeper with the exception of the lumber records. These are kept by the foreman of the lumber yard, who being an experienced lumberman can keep them with the greatest accuracy. Too much importance cannot be attached to this matter of keeping material stock records; unless closely watched, the careless handling of material is apt to prove one of the worst leak holes in the factory. The stock-keeper is held rigidly responsible for all material placed in his care and no employe is permitted to withdraw a single article without a requisition from his foreman either for new stock or for replacement of parts spoiled in working.

All work of whatsoever nature in the factory is done on written orders emanating from the shop superintendent. Orders are of two distinct kinds:

I.—Standing Shop Orders:—These are designated by a fixed serial given below and cover all general instructions as to shop repairs, maintenance of machines, buildings, etc. Form 4 is used for these orders.

1 Repairs to buildings.
2 Improvements and additions to buildings.
3 Repairs to machinery.
4 Improvements to new machinery.
5 Repairs ot tools.
6 New Tools.
7 Repairs to patterns and dies.
8 New patterns and dies.
9 General repairs.
10 General improvements.

II.—Productive Orders:—These are divided under the following heads, (A) stock orders are issued to the various departments to make and furnish to stock, separate parts ready for assembly. (B) repair orders are issued for repair jobs to the departments directly affected by them. A large proportion of repair orders in the factory require only separate parts to be taken from stock and sent to the paint shop. (C) assembly or shipping orders are issued to assembly room, paint shop and shipping department to assemble and prepare for shipment orders as received from customers. Under this class of orders, provision is made to keep in warehouse ready for immediate shipment a moderate supply of complete wagon gears, beds and wheels of





the kinds and sizes constituting the general demand of the trade. (D) special orders are issued to all productive departments required in their execution and, usually, being rush work, they take precedence over all regular work in the shop. These orders require material to be taken directly from rough stock and worked entirely through the factory. Each class of orders enumerated above is issued on a different serial number so there is no liability of confusion in any of the shop records. A sample of the stock order, Form 5-a, is shown herewith.

When rough material, as indicated by stock ledger (Form 3-a), has reached the minimum limit, stock-keeper notifies the purchasing department on material requisition, Form 1. When stock ready for assembly as indicated by stock ledger (Form 3-b) has reached the minimum limit, stock-keeper notifies shop superintendent who issues productive order which is at once a bill of material to stock-keeper for rough material required and an order to perform labor on same. Duplicates of all productive shop orders of whatsoever nature are sent to the cost department and a labor assembly sheet, Form 6, is made out here for each separate part called for in order. This form is kept in loose-leaf binder for convenience.

In the method of handling labor in the wood working department it is found most convenient to make two divisions. It is immaterial whether the sawing and planing room and the wood machine room are separate departments or whether they are in one room. Up to the point where the wagon parts are ready for machine work, the labor cost on them is determined per square foot. The two following forms have proved to be the simplest and least confusing manner of handling what might otherwise be a matter of much guesswork. Form 7 is kept by the cost department and one sheet of this form is carried for each kind of lumber used in the factory. Information for column "feet received" is obtained from foreman of the lumber yard who makes duplicate report of all deliveries to factory. Information for column "feet delivered" is obtained from planing room foreman's daily report, Form 8, showing the exact production of each kind of lumber in his department. Information for "labor on operations" is obtained from workmen's daily tickets. From these sheets, Form 7, we can find at any time, the production in feet of the planing room each day, the labor cost per square foot in working each kind of wagon lumber up into separate parts and the percentage of loss in working each kind of lumber; information which is all vitally important to a company using large quantities of lumber. This record may not always tally with the stock production orders for so much depends upon the judgment of the foreman in working up his lumber, that, were he bound to get out the exact requirements of each order, he would be continually hampered in his work; small parts are always being accumulated which must be stored away to apply on future orders. But the information mentioned above is all that is necessary to make this one of the most important records in the factory.

Parts sufficient to cover each order are delivered by planing room to wood-machine room. Here shop card, Form 9, is made out for each lot of

**MATERIAL REQUISITION**

_____ 190

PURCHASING DEPARTMENT:
The following material is needed in _____ department for { Stock / Order / Supplies }

| Quantity | Description | Dimensions | Quantity now On Hand | For use in Office — Rate | | | Amount | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Signed _____

FORM 1.

**LUMBER INSPECTOR'S REPORT**

From _____
Car No. _____ by Mills _____ _____ 190

| Quantity | Description | Dimensions | Total Feet |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Inspector

FORM 2.

**DAILY REPORT**

Delivery of Stock from Planing Room _____ 190

| No. Pieces | Kind of Lumber | Description | Dimensions | W or N Track | Feet Each | Total Feet |
|---|---|---|---|---|---|---|
| | | | | | | |

FORM 8.

**FINISHED STOCK RECORD**

Weight Each (Iron) _____
Feet Each (Wood) _____
Minimum Limit _____

Name _____ Size _____

| RECEIVED | | | | | DISBURSED | | | | LOSS RECORD | | | BALANCE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Order No. | Quantity | Cost Each | Cost | Date | Assembly Order No. | Quantity | Cost | Date | Order No. | Quantity | Quantity | Cost |
| | | | | | | | | | | | | | |

FORM 3B.

**STOCK RECORD—RAW MATERIAL**

Weight Each (Iron) _____
Feet Each (Wood) _____
Minimum Limit _____

Name _____ Size _____

| RECEIVED | | | | | DISBURSED | | | | LOSS RECORD | | | BALANCE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | From Whom Purchased | Quantity | Price | Cost | Date | Order No. | Quantity | Cost | Date | Order No. | Quantity | Quantity | Cost |
| | | | | | | | | | | | | | |

FORM 3A.





_____ 190 Order No. _____

**STOCK PRODUCTION ORDER**

Mr. _____
Please have workmen in your department perform necessary labor to furnish following material to stock.

| QUANTITY | SIZE | DESCRIPTION |
|---|---|---|
| | | |

| Pattern No. | Name of Part | Dimensions | Number Required | Pattern No. | Name of Part | Dimensions | Number Required |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Superintendent

FORM 5A.

_____ 190

**STANDING SHOP ORDER**

Mr. _____
You will please have the following done in _____ department and charge same to Shop Order No. _____

| | | |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Superintendent

FORM 4.

**SHOP CARD** Pattern No. _____

Order No. _____ _____ 190

| No. Pieces | Size | Description |
|---|---|---|
| | | |

LOSS RECORD

| Pieces Lost | Cause of Loss | Explanation |
|---|---|---|
| | | |
| | | |
| | | |

Received _____ pieces in dimension

Store-keeper

FORM 9.

**LABOR ASSEMBLY COST SHEET**

No. Pieces _____ Description _____ Order No. _____
_____ 190

| Operation | Labor Record — Hours / Rate | | | | | | | | | | Pieces Finished | Total Labor | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |

FORM 6.

**PLANING ROOM LUMBER RECORD**

Name _____

| Date | Order No. | Feet Received | Feet Delivered | Cutting Off | Ripping | Dressing | Band Sawing | | Total Labor | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Loss in Feet _____ Loss % _____ Labor Cost per foot _____

FORM 7.

DAILY TIME SLIP Register No.____
Order No.____ 190

| No. Pieces | Description | Operation | Time Started | Time Finished | Hours D'wk | Hours P.W. | Rate | Total Earnings |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Correct____ Foreman

FORM 10.

STATEMENT OF SALES AND COSTS
190

| Total Sales | Factory Cost | Selling Cost | Total Cost | Gross Profit |
|---|---|---|---|---|
| | | | | |

FORM 16.

PIECE WORK RECORD Register No.____ Name of Workman____

| Description | Pattern Number | Name of Operation | | Pay Roll Record Week Ending 12 13 14 | Total Time | | Total No. Pieces | Rate | Total Earnings | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Time | | | | | | | |
| | | | Pieces | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Day Work | | | | | | | | | | |

FORM 11.

PAINT MATERIAL COST SHEET From____ 190 To____ 190

| No. Pieces Finished | Name | Average Feet Each / Painting Surface | Total Feet | Primer (pounds) | Primer (pounds) | Primer (pounds) | Color (pounds) | Color (pounds) | Color (pounds) | Varnish (pounds) | Varnish (pounds) | Cost Each / All Costs Applied | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |

FORM 12.

FINISHED PART COST SHEET
Size, W.T.____
Size, N.T.____
Pattern No.____
Feet Each (Wood)____
Weight Each (Iron)____

| Date | Order No. | No. Pieces | Operation | Operation | Operation | Operation | Operation | Operation | Total Labor | Labor Cost Each |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

FORM 13.





PAY ROLL DISTRIBUTION SHEET
For____ week ending____ 190

| DEPARTMENT | Foremen | Roustabout | Misc. Non-prod. | Total Non-prod. | EXPENSE LABOR x-1 | x-2 | x-3 | x-4 | x-5 | x-6 | x-7 | x-8 | x-9 | x-10 | Day Work | Piece Work | Total Productive | Total Pay Roll | % Foremen of Total Pay Roll | % Non-prod. of Total Pay Roll | % Non-prod. to Productive |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Machine Room | | | | | | | | | | | | | | | | | | | | | |
| Blacksmith Shop | | | | | | | | | | | | | | | | | | | | | |
| Lumber Yard | | | | | | | | | | | | | | | | | | | | | |
| Planing Room | | | | | | | | | | | | | | | | | | | | | |
| Wood Machine Room | | | | | | | | | | | | | | | | | | | | | |
| Bed Making Room | | | | | | | | | | | | | | | | | | | | | |
| Assembly Room | | | | | | | | | | | | | | | | | | | | | |
| Paint Shop | | | | | | | | | | | | | | | | | | | | | |
| Shipping Room | | | | | | | | | | | | | | | | | | | | | |
| Engine Room | | | | | | | | | | | | | | | | | | | | | |
| Stock-Keepers | | | | | | | | | | | | | | | | | | | | | |
| Totals | | | | | | | | | | | | | | | | | | | | | |

FORM 14.

MATERIAL AND LABOR INVENTORY
From____ 190 To____ 190

| DR. MATERIAL | DR. LABOR | CR. MATERIAL | CR. LABOR |
|---|---|---|---|
| Inventory<br>Lumber<br>Iron<br>Paints<br>Mdse.<br>Material in Process<br>Finished Stock | Inventory<br>Labor on Material in Process<br>Labor on Finished Stock | Shipments<br>Farm Wagons<br>Dump<br>Repairs<br>Misc. Sales<br>Material used on various standing shop orders<br>Inventory<br>Lumber<br>Iron<br>Paints<br>Mdse.<br>Material in Process<br>Finished Stock | Shipments<br>Farm Wagons<br>Dump<br>Repairs<br>Misc. Sales<br>Labor expended on various standing shop orders<br>Inventory<br>Labor on Material in Process<br>Labor on Finished Stock |
| Purchases<br>Lumber<br>Iron<br>Paints<br>Mdse. | Pay Roll<br>Foremen<br>Roustabout<br>Misc. Non-prod.<br>Productive Expense | | |
| TOTAL | | | |

FORM 17.

PATTERN RECORD
DIE.
Pattern No.____
Name____
Description____
From Drawing No.____
Cost. Mat.____ Labor____ Exp.____ Total____
Date____

FORM 18.

parts, as is also done for iron parts in the blacksmith shop and machine shop. Workmen in all productive departments charge time on daily time slips. Form 10, giving time spent, operation performed and number of pieces. These time tickets are collected daily, checked with the automatic time recorder for correctness of time reported and posted to labor assembly sheet, Form 6. Time of the piece workers, after being entered on the labor assembly sheet is posted to pieceworkers' records, Form 11, which is totaled and checked for the pay roll at each regular pay period. We consider this pieceworkers' record an important factor in factory accounting and it is closely watched by the superintendent, who can tell from it at any time the earnings of each pieceworker, the proportion of his time each man spends on piecework, the average earnings per hour on each piecework job, and thus makes it not only a time sheet for each man but also a basis for readjusting piecework throughout the shop.

When parts are finished in the shop they are sent to the stockroom accompanied by shop card, Form 9, on which has been noted by inspector any loss in working. The inspector makes a daily report to the office of all losses and defects found in the factory, giving cause of loss, parts lost and explanation as to further use of spoiled parts. Loss in working parts in each department is made up by stock-keeper at fixed periods and this loss is pro-rated over entire output for same period.

Stock-keeper charges each lot received on stock ledger, for finished parts, (Form 3-b) and forwards each shop card to the cost department. On receiving shop card, cost clerk totals labor assembly sheet and posts it to finished part cost sheet, Form 13, on which an account is carried for every part which has labor performed on it. This sheet is kept in loose-leaf form and is divided into volumes according to productive departments.

By means of this form, productive labor on all wagon parts can be kept for comparison and reference for any given period and average labor costs obtained therefrom. Productive labor costs of all special orders are obtained from their respective labor assembly sheets immediately upon completion.

Each pay period the cost clerk compiles the pay roll distribution sheet, Form 14, which shows for each department in the factory (a) foreman's labor, (b) roustabout labor, (c) total non-productive labor, (d) labor on various standing shop orders, (e) total productive labor and (f) total pay roll. Place is also provided for showing percentage of foreman's labor and non-productive labor to total pay roll and percentage of non-productive labor to productive labor. The comparisons thus shown on this sheet are a valuable help in the problem of the reduction of indirect factory labor. All items on this sheet are obtained from daily postings of the workmen's time slips with the exception of items (e) and (f). Item (e) is the balance between the sum of all non-productive labor and expense labor and the total pay roll. This item of productive labor is checked as to its accuracy each month as follows: Labor on unfinished orders at beginning of the month added to productive part of pay roll must balance unfinished orders at end of month added to





all completed orders during the month. This makes a complete check on all labor in the factory.

Cost of all materials is furnished to cost department by stock-keeper representing actual cost of materials purchased F. O. B. the factory. Special orders requiring the purchase of materials not regularly kept in stock are charged directly with cost of same.

Paint material costs are obtained periodically by means of paint material cost sheet, Form 12. Records are kept by cost department showing average painting surface of each completed wagon part which passes through paint shop. Stock-keeper supplies record of the number of various wagon parts finished in paint shop also number of pounds of paint material of each kind distributed to painters during given period. The compiling of this record then is simply a problem in the distribution of cost in proportion to the number of feet in each wagon part, making an accurate tabulation of paint material cost for any part.

The remaining item to complete the cost of the product is expense. This is obtained by taking all expense accounts in the general ledger and finding the percentage which they bear to the total pay roll for the year. The expense accounts are subdivided into factory expense and selling expense and a careful distinction is at all times maintained between the cost to manufacture and the cost to market the product. This subdivision of factory and selling expense is a problem which depends upon local conditions in the factory and must be worked out according to the individual experience of each firm.

COST ASSEMBLY SHEET

| Pattern No. | Name | Dimension | Piecework Each | Piecework Base Price | MATERIAL Wood | Iron | Paints | Hardware | Total Material | LABOR Total Productive | Non-Productive | Total Labor | EXPENSE Factory Expense | TOTAL Cost to Manufacture |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Total | | | | | | | | | | | | | |

Form 15.

With all the cost elements now found, cost assembly sheet is prepared, Form 15, showing in detail the material cost of wood, iron, paints and wagon hardware and the total productive labor cost of each part. To the total productive labor the percentage of indirect labor is added and to all labor is added the percentage of factory expense. This total represents the entire factory cost of any wagon part assembled. Cost of complete wagons of any desired height of bed, size of skein or width of tire is then obtained by further combining costs of sizes necessary to make the required combination.

We have outlined the method by which the total cost to manufacture any size or style of the product is built up by successive steps. Cost clerk

places itemized factory cost on a carbon copy of each invoice which is sent out. These are then filed for ready reference and each month a statement of sales and costs is prepared from them according to Form 16, which shows total sales for month, shop cost, selling cost and total cost for same and gross profits for the month.

Material and labor inventory, Form 17, should be kept to maintain an accurate check on the factory accounts. This practically amounts to a controlling account with material and labor in the general ledger. From this sheet the costs of material and labor consumed on various factory expense items are charged to their corresponding accounts in the general ledger from which source the percentage of expense is obtained.

Form 18 for shop patterns and shop dies is kept by cost department as auxiliary to the work of factory accounting. Material used on new patterns and dies is reported by stock-keeper and labor on same is taken from daily time slips. All steel smith shop dies and patterns for iron parts are stenciled with their pattern numbers and all wood patterns and templets have pattern numbers painted on them.—*C. R. Bushong.*

## (973) WORKING BALANCE SHEET.

A term used to designate a form of balance sheet drawn up by some accountants, preliminary to formulating their various financial statements. An illustration of this preliminary balance sheet will be found on another page.





*Illustration of relation of Trial Balance, Trading Statement, Profit & Loss Statement, and Balance Sheet to each other, depreciation and reserve for bad debts not being considered.*

| Accounts | Trial Balance | | Trading Acct | | Profit & Loss | | Balance Sheet. | |
|---|---|---|---|---|---|---|---|---|
| | Debits | Credits | Debits | Credits | Debits | Credits | Debits | Credits |
| Capital | | 10000000 | | | | | | 10000000 |
| Treasury Stock | 1500000 | | | | | | 1500000 | |
| John Smith | 50000 | | | | | | 50000 | |
| Cash | 175000 | | | | | | 175000 | |
| Postage | 27059 | | | | 27059 | | | |
| Discount | 7658 | | | | 7658 | | | |
| Freight & Express | 15296 | | | | 15296 | | | |
| Printing & Stationery | 18879 | | | | 18879 | | | |
| Advertising | 100000 | | | | 100000 | | | |
| Manf Expense | 3002175 | | 3002175 | | | | | |
| Labor | 1205065 | | 1205065 | | | | | |
| Salaries | 97000 | | | | 97000 | | | |
| Accts Receivable | 3082572 | | | | | | 5082572 | |
| Accounts Payable | | 4140050 | | | | | | 4140050 |
| Real Estate | 2640000 | | | | | | 2640000 | |
| Machinery & Plant | 1200000 | | | | | | 1200000 | |
| Patents & Good Will | 2036651 | | | | | | 2036651 | |
| Sales Account | | 9236417 | | 9236417 | | | | |
| Purchase Acct | 8610904 | | 8610904 | | | | | |
| Inventory 1/1/90 | | | 3210000 | | | | 3210000 | |
| | | | 17541173 | 12466417 | 4344173 | 4344173 | 17541173 | 14180467 |
| | | | | *5074756 | | | *3594223 | |
| | 23396467 | 23396467 | 12466417 | 12466417 | 4344173 | 4344173 | 11594223 | 11594223 |

*Gross Profit on trading *Net Profit ⊕Surplus

# COMMERCIAL LAW

# COMMERCIAL LAW

## ABATEMENT.

In contracts, a reduction made by the creditor, for the prompt payment by the payer or debtor of a debt due.

## ABBREVIATION.

A shortened form of a word, obtained by the omission of one or more letters or syllables from the middle or end of the word.

The use of abbreviations capable of explanation by parol evidence or usage does not, as a general rule, vitiate a writing or bill. Courts take judicial notice of abbreviations ordinarily used to designate time, such as those for month, forenoon, afternoon, etc., and will determine the meaning of customary abbreviations of common words, names of places, and Christian names, without proof. As the form "int." inserted after the words "Value received" in a promissory note is an abbreviation of the word "interest," and should be construed the same as if the word was written out. The letter "a" in a note as "Int. a 6% p. a." stands for the word "at," and "6%" for six per cent.," and the letters "p." and "a." for "per annum." "Com." and "Co." are well understood abbreviations of the word "company," and the abbreviation "dolls." stands for "dollars."

## ABODE.

The place where a person dwells. His domicile.

## ABOUT.

Almost or approximately; near.

The import of the qualifying word "about" is simply that the actual quantity is a near approximation to that mentioned, and its effect is to provide against accidental variations. When there is a material and valuable variation, a court of equity, upon a petition for specific performance, will give the word its proper effect.

A contract to pay a claim of about one hundred and fifty dollars, was held to cover the claim although it amounted to fifty dollars more, the claim being otherwise identified.

When an assignment was made "in trust to pay the debts due the following persons, *viz.*," and then followed the names and debts, and a debt due one creditor was put down "about $11,000" which was in fact upwards of $13,000, it was held that the trust included the latter sum.

"About to remove" or "about to abscond" in attachment affidavits do not imply the next hour, or day, or week, or month, but that the removal or

absconding will shortly occur; each case, as it arises, to be governed by its own special facts.

## ABSCOND.

To go in a clandestine manner out of the jurisdiction of the courts, or to lie concealed, in order to avoid their process.

A person who departs from his usual place of abode secretly or suddenly, or retires or conceals himself from public view in order to avoid legal process is held to have absconded.

A debtor shut up in his own house from his creditors is an absconding debtor.

## ABSENT.

In attachment laws, removed from home to avoid process.

## ABSTRACT OF TITLE.

A summary of the recorded instruments affecting a given piece of real estate.

## ACCEPT—ACCEPTANCE.

The receipt of a thing offered by another with an intention to retain it, indicated by some act sufficient for the purpose.

The element of receipt must enter into every acceptance, though receipt does not necessarily mean, in this case, some actual manual taking. To this element there must be added an intention to retain. This intention may exist at the time of the receipt or subsequently.

Under the statute of frauds, delivery and *acceptance* are necessary to complete an oral contract for the sale of goods, in most cases. It is said that such acceptance must be absolute and past recall. If an article is found defective, but is retained and used, it is a sufficient acceptance. If goods are delivered to a third person by order of the purchaser they are deemed to have been received and accepted by the latter, through his agent.

Acceptance of Bills of Exchange is an engagement to pay the bill in money when due. Such acceptances are:

Absolute, which is a positive engagement to pay the bill according to its tenor.

Conditional, which is an undertaking to pay bills on a contingency. The holder is not bound to receive such an acceptance, but, if he does receive it, he is bound to observe its terms.

Expressed, which is an undertaking in direct and express terms to pay the bill.

Implied, which is an undertaking to pay the bill, inferred from acts of a character which fairly warrant such an inference, as where one receives and uses goods, knowing that a draft has been drawn on him for their price. The retaining and use of the goods is equivalent to an acceptance.





Partial, which is one varying from the tenor of the bill. As an acceptance to pay a part of the amount for which the bill is drawn; or to pay at a different place or time.

Qualified, which are either partial or conditional, and introduce a variation in the sum, time, mode, or place of payment.

Supra Protest, or For Honor, which is the acceptance of the bill after protest for the honor of the drawer or for honor of a particular indorser.

Acceptance, other than supra protest, must be made by the drawee or some one authorized to act for him. The drawee must have capacity to act and bind himself for the payment of the bill, or it may be treated as dishonest. The acceptance and delivery of negotiable paper on Sunday is void between the parties, but if dated falsely as of another day, it is good in the hands of an innocent holder. Acceptance may be in writing on the bill itself or on another paper, and it seems that the holder may insist on having a written acceptance, and in default thereof may consider the bill as dishonest. It may be made before the bill is drawn, in which case it *must* be in writing; it may be made after the bill is drawn and before it becomes due, which is the usual course, or after it becomes due, or even after a previous refusal to accept. Acceptance must be made within twenty-four hours after presentment, or the holder may treat the bill as dishonored. Upon *refusal* to accept, the bill is at once dishonored, and should be protested. The usual form of acceptance is by writing "accepted" across the face of the bill and signing the acceptor's name but the drawee's name alone is sufficient, or any word or phrase of equivalent force to *accepted*.

A parol promise, upon sufficient consideration, to accept a bill of exchange, binds the acceptor.

## ACCOMMODATION PAPER.

A bill of exchange or promissory note to which the acceptor, drawer, maker, or indorser, as the case may be, has put his name without consideration, for the purpose of accommodating, by a loan of his credit, some other person who is to provide for the bill or note when it falls due.

The strict obligations of parties to commercial paper are modified to a certain degree in the case of accommodation parties.

The accommodated party undertakes, impliedly if not expressly, first, that he will provide for the bill or note at its maturity; and, second, that he will indemnify the accommodation party in case the latter is compelled to take up the paper.

The accommodation party, by his signature, first confers a power or authority upon the party accommodated to bind him, the accommodation party, in favor of third persons by the issue of the paper; and, second, when the paper has been negotiated, he becomes bound to the indorsee or holder in accordance with the rules of commercial law and the position of his name upon the instrument, from the date of the instrument.

The party for whose accommodation the paper has been made acquires no right against the accommodation party, since, as between them, there is no

consideration, a fact which is always a defense to a suit upon negotiable paper between the immediate parties.

When the accommodation party has been compelled to pay the instrument, the party accommodated becomes, in consequence of the implied contract of indemnity, a debtor of the accommodation party, and the latter has a right of action against the former. This relation arises only when payment has been made, and the statute of limitation begins to run from the date of payment.

## ACCORD AND SATISFACTION.

In contracts *Accord* is an agreement between two parties to give and accept something in *Satisfaction* of a right of action which one has against the other, which, when performed, is a bar to all actions upon this account; generally used in the phrase "accord and satisfaction." It must be advantageous to the creditor, and he must receive an actual benefit therefrom which he would not otherwise have. The payment of a part of the whole debt due is not a good satisfaction, even if accepted, unless the amount due is disputed, or contingent, or there are mutual demands. If any additional benefit be received, as payment at some other place or at an earlier time, etc., then a payment in part will be held to be a good satisfaction.

Where the value of services was in dispute, and a check was sent for part claimed, with a statement that it was to be in full satisfaction, and the check was retained, the debt, which was unliquidated, was satisfied by such retention.

## ACCOUNT.

A detailed statement of the mutual demands in the nature of debit and credit between parties, arising out of contracts or some fiduciary relation. There are various kinds of accounts, *viz.*:

### OPEN ACCOUNT.

Is an account not stated or agreed upon between the parties. Thus an account is open when some term of the contract is not settled by the parties, whether the account consists of one item, or many. Also, an account is open when there have been current dealings between the parties, which are kept unclosed with the expectation of further transactions between them.

### CURRENT ACCOUNTS.

Are accounts not stated, running accounts. The difference between a *running* account and one that does not run is that in the latter each item is a separate cause of action in itself, the minds of the parties are presumed to have concurred only on single transactions; but in the case of running accounts, according to the doctrine of relation, the subsequent acts relate back each to the preceding act and all the original acts. When each of a series





of transactions covering a number of years is separate and distinct from those which precede it, there is no running account.

### ACCOUNT RENDERED.

Is a statement presented by a creditor to his debtor showing charges of the former against the latter. Merely rendering an account gives it no binding effect upon the debtor, but by his acquiescence, express or implied, it becomes an account stated.

### ACCOUNT STATED.

Is an agreement between parties who have had previous transactions of a monetary nature, that all the items of the accounts representing such transactions are true, and that the balance struck is correct, together with a promise, express or implied, for the payment of such balance. The respective book-keepers of the debtor and creditor may state an account binding upon the employers as an account stated. An account cannot become an account stated with reference to a debt payable on a contingency; there must be an agreement. Yet an account rendered may become an account stated as to the items admittedly correct, although an item of the account may be disputed. Where an account is rendered to a merchant, and no objection is made, after sufficient time, acceptance will be inferred, and such an account will be deemed conclusive between the parties. An account stated is conclusive as to the liability of the parties, with reference to the transactions included in it, and cannot be reopened except in cases of fraud, or manifest error. And it is not necessary to say in the statement "E. & O. E." that is implied.

### ACCOUNTS SETTLED.

When the balance admitted upon a stated account is paid, the account is deemed a settled account.

Giving a promissory note is *prima facie* evidence that the accounts have been settled, but the term is also used in a less strict sense, as where the parties agree and strike a balance they are said to have settled their accounts.

### ACCOUNT SALES.

Are separate accounts rendered by a factor, or broker, to his principal, showing goods sold, prices obtained, and the net results after deduction of expenses, etc.

### BOOK ACCOUNTS.

The word "accounts" includes "book accounts."

### BANK ACCOUNTS.

This phrase designates the fund which merchants, travelers and others have deposited into the common cash of some bank, to be drawn out by checks from time to time, as the owner or depositor may require; also the

statement of the amounts deposited and drawn, which is kept in duplicate, one in the depositor's book and the other on the books of the bank.

Balancing the debtor's bank-book, and returning it to him, makes an *account stated* between the bank and the depositor, if the latter retains it without objection.

## ACCOUNT BOOK.

A book in which accounts are kept; a book kept by a merchant, trader, mechanic or other person, in which are entered, from time to time, the transactions of his trade or business. Such books, when regularly kept, may be admitted in evidence.

## ACCRUED.

Means due and payable, vested. The phrase "The dues of members of the lodge *accrue weekly*," was held to mean that the dues are estimated or measured weekly, and not that they were payable weekly.

## ACCRUING INTEREST.

Running or accumulating interest, as distinguished from *accrued* or natural interest.

## ACKNOWLEDGE.

To admit; to confess; to give a receipt for money; to own; so to assent to a legal instrument as to give it validity.

## ACKNOWLEDGMENT.

The act of acknowledging the state of being acknowledged, or the thing acknowledged.

The admission of having received money, whether owing to one or bestowed as a gift; the admission of having received a benefit of any kind; also the receipt for such money, the expression of gratitude for such favor. The admission of an act to take the responsibility of it, as the admission of a debt. The act of one who has executed a deed or other legal instrument, in going before some competent officer, or court, and declaring it to be his act and deed. In most states such act is held to be a judicial one, while in some it is held to be a ministerial one. The object of acknowledgment is twofold: first, to entitle a deed to be recorded; and, second, to make it competent evidence without further proof of its execution. The practice of acknowledging instruments is a creation of modern statutes, being unknown to the common law. It arose from a desire to prevent fraud and litigation in establishing title to lands, by providing reliable evidence of such title.

Acknowledgment is not an essential part of the instrument; and as to parties to the instrument, and persons with actual notice, neither an imperfect





acknowledgment nor the total want of any acknowledgment affects the validity of the conveyance.

## ACKNOWLEDGMENT—FORM OF.

On this ..... day of ....., A. D. one thousand nine hundred and ten ....., before me, ....., a Notary Public, in and for said ..... County, residing therein, duly commissioned and sworn, personally appeared ....., known to me to be the President, and ....., known to me to be the Secretary of the ....., the corporation described in and that executed the within and annexed instrument, and severally acknowledged to me that such corporation executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal, at my office, in the City of ....., County of ....., State of ....., the day and year in this certificate first above written.

.....

*Notary Public.*

## ACQUIESCENCE.

A silent appearance of consent; submission to; express or tacit consent, assent to; tacit acceptance of.

Acquiescence in the acts of an agent, or one who has assumed that character, will be equivalent to an express authority.

## ACT OF GOD.

Any accident due to natural causes directly and exclusively, without human intervention, such as could not have been prevented by any amount of foresight, and pains, and care reasonably to have been expected; such as those caused by lightning, earthquakes, and tempests.

Where the law casts a duty on a party, the performance should be excused if it be rendered impossible by the act of God; but where the party, by his own contract, engages to do an act, it is deemed to be his own fault that he did not thereby provide against contingencies, and exempt himself from responsibilities in certain events; and in cases of absolute general contracts, the non-performance is not excused by an inevitable accident, or other contingency, although not foreseen by, nor within the control of, the party.

Contracts for strictly personal services, marriage, etc., are discharged by death or incapacity.

## ACTUAL.

Something real, in opposition to constructive or speculative; something "existing in act." The actual possession by a person of any property creates the presumption that he is the rightful owner thereof; hence the necessity of recording bills of sale, chattel mortgages, etc., to give third persons notice of rights of lienors.

## ACTUAL DAMAGES.

The damages awarded for a loss or injury actually sustained; in contradistinction from damages implied by law, and from those awarded by way of punishment.

## AGENT.

One who undertakes to transact some business, or to manage some affair for another, by the authority and on account of the latter, and to render an account of it. The term is of wide application and is used to include factors, commission merchants, brokers, attorneys at law and in fact, cashiers of banks, auctioneers, clerks and the like.

### WHO MAY BE AN AGENT.

Many persons disqualified from acting for themselves, such as infants, persons attainted or outlaws, aliens, slaves, and others could act as agents in the execution of a naked authority. A married woman may be the agent of her husband, and as such, with his consent, bind him by her contract or other act, but she cannot contract for the sale of his lands without express authority, and she may be the agent of another in a contract with her husband. Anyone may act as agent except lunatics, insane persons and children of very tender years.

### EXTENT OF AUTHORITY.

The authority of an agent, unless the contrary clearly appears, is presumed to include all the necessary and usual means of executing it with effect. Where, however, the whole authority is conferred by a written instrument, its nature and extent must be ascertained from the instrument itself, and can not be enlarged by parol evidence.

An agent can not generally appoint a sub-agent so as to render the latter directly responsible to the principal. But it may be done when necessity requires, and when the delegated acts are ministerial involving no great skill or discretion.

### DUTIES AND LIABILITIES.

The particular obligations of an agent vary according to the nature, terms and end of his employment. When his authority is limited by instructions, it is his duty to adhere faithfully to those instructions, if the act is legal and moral, but cases of extreme necessity and unforeseen emergency constitute exceptions to this rule. He is bound to execute the orders of his principal, whenever, for a valuable consideration he has undertaken to perform them. He is to exercise skill; keep his principal informed of his doings and give reasonable notice of whatever may be important to his interests; keep regular accounts and render his accounts to his principal at reasonable times.

As to principals, the liabilities of an agent arise from a violation of duties and obligations to them by exceeding his authority, by misconduct,





or by negligence, omission, or act by the natural result or just consequence of which the principals sustain a loss. The degree of neglect which will make the agent responsible for damages varies according to the nature of the business and the relation in which he stands to his principal.

As to third parties, when an agent is known to act merely for another, and with full authority, his acts and contracts will be deemed those of the principal only, and the agent will incur no personal responsibility. But when he does an act without authority or exceeds his authority, and the want of authority is unknown to the other party the agent will be personally responsible to the person with whom he deals.

### RIGHTS AND PRIVILEGES.

An agent is ordinarily entitled to compensation for his services, commonly called a commission, which is regulated by special agreement, by usage of trade, or by the presumed intention of the parties. The agent has a right to reimburse his advances, expenses, and disbursements reasonably and in good faith incurred and paid, without any default on his part, in the course of his agency.

## AGREEMENT.

"The expression by two or more persons of a common intention to affect the legal relations of those persons." It consists of two or more persons being of the same mind, intention or meaning concerning the matter agreed upon. A coming together of parties in opinion or determination, the union of two or more minds in a thing done or to be done; a mutual assent to do a thing. The consent of two or more persons concurring, the one in parting with, the other in receiving, some property, right or benefit.

Conditional Agreements are those which are to have full effect only in case of the happening of certain events, or the existence of a given state of things.

Executed Agreements are those where nothing further remains to be done by the parties.

Executory Agreements are such as rest on articles, memoranda, parol promises or undertakings, and the like, to be performed in the future, or which are entered into preparatory to more solemn and formal alienations of property.

Express Agreements are those in which the terms are openly uttered and avowed by the parties at the time of making.

Implied Agreements are those which the law supposes the parties to have made, although the terms were not openly expressed.

## ALLONGE.

A piece of paper annexed to a bill of exchange or promissory note, on which to write endorsements for which there is no room on the instrument itself.

## ALTERATION.

A change in the terms of a contract or other written instrument by a party entitled under it, without the consent of the other party, by which its meaning or language is changed; a change in the language of instruments but not in the contract itself.

Such a change by a stranger is called a *spoliation*. A change in the written instrument by agreement of the parties is sometimes called an alteration, but such an altered instrument becomes a new agreement.

An *alteration* avoids the instrument, if such alteration is material. The question of materiality is one of law for the court and depends upon the facts of each case.

A *spoliation* by a third party without the knowledge of, or consent of a party to the instrument will not avoid it even if material, if the original words can be restored with certainty, but the material spoliation of an instrument while it is in the custody of the promisee, avoids his right under it, because having the custody of an instrument made for his benefit he is bound to preserve it in its original state.

## AMBIGUITY.

Duplicity, indistinctness, or uncertainty of meaning of an expression used in a written instrument.

*Latent* ambiguity is that which arises from some collateral circumstance or extrinsic matter in cases where the instrument itself is sufficiently certain and intelligible.

*Patent* ambiguity is that which appears on the face of the instrument; that which occurs when the expression of an instrument is so defective that a court of law which is obliged to put a construction upon it, placing itself in the situation of the parties, cannot ascertain therefrom the parties' intention.

Latent ambiguities may be explained by parol evidence, and are subjects for the consideration of a jury. Patent ambiguities render the instrument, so far as they extend, inoperative. They can not be explained by parol evidence.

*Inaccuracies* or such uncertainty as arises from the use of peculiar words, or common words in a peculiar sense, are not ambiguities.

## AMOUNT COVERED.

In insurance, the amount that is insured, and for which underwriters are liable for loss under a policy of insurance.

## ANNUALLY.

Yearly; returning every year. As applied to interest it is not an undertaking to pay interest at the end of one year only but to pay interest at the end of each and every year during a period of time, either fixed or contingent.





## ANY.

Is synonymous with "either" and is given the full force of "every" or "all."

## APPORTIONMENT.

The division or distribution of a subject-matter in proportionate shares. The allowance, in case of the partial performance of a contract, of a proportionate part of what the party would have received as a recompense for the entire performance of the contract.

## APPRAISEMENT.

A just valuation of property. Appraisements are required by law to be made of the property of persons dying intestate, of insolvents, and others, when an inventory of the goods ought to be made, and a just valuation put upon them.

## APPROPRIATION OF PAYMENTS.

The application to one or more of several debts, of a payment made by a debtor to his creditor.

The debtor has the first right of appropriation. No precise declaration is required of him, but his intention, when made known, is sufficient; still such facts must be made to appear and be proved as will satisfy a jury that the debtor did purpose the specific appropriation claimed. The appropriation must be made by the debtor at or before the time of payment.

The creditor may apply the payment, as a general rule, if the debtor does not. In the absence of directions the creditor may apply credits to the least secure items of his claim, but there are some restrictions on this right. The debtor must have known and waived his right of appropriation. The creditor must prefer a prior *legal* debt to a posterior equitable debt. Where only one of several debts is valid and lawful, all payments must be applied to this, irrespective of its order in the account. A creditor cannot apply unappropriated funds to such of his claims as are illegal and not recoverable at law. But in the case of some debts illegal by statute,—namely those contracted by sales of spirituous liquors,—an appropriation to them has been held good. And the debtor may always elect to have his payments applied to an illegal debt.

If some of the debts are barred by the statute of limitations the creditor cannot first apply the unappropriated funds to them, and thus revive and take them out of the statute. Still a debtor may waive the bar of statute of limitation, just as he may apply his funds to an illegal debt; and the creditor may insist, in the silence of the debtor, unless other facts controvert it, that the money was paid on the barred debts. It has been held that a creditor may first apply a general payment to discharging any one of several accounts all barred, and by so doing he will revive the balance of that particu-

lar account, but he is not allowed to distribute the funds upon all of the barred accounts so as to revive all.

The law will apply part payments in accordance with the justice and equity of the case, and in a manner most beneficial to the debtor at the time of payment.

Unappropriated funds are always to be applied to a debt at the time of payment, rather than one not then due. But an express agreement will make good an appropriation to debts not due.

Payments made on account are first to be applied to the interest which has accrued thereon. And, if the payment exceed the amount of interest, the remainder goes towards extinguishing the principal. But a payment cannot be applied by the creditor to usurious interest.

When no other rules of appropriation intervene, the law applies part-payments to debts in the order of time, discharging the oldest first. So strong is this rule of priority that it has been said that equity will apply payments to the earliest items, even where the creditor has security for these items and none for later ones.

The general rule is that neither debtor nor creditor can so apply a payment as to affect the liabilities of sureties, without their consent. Where a principal makes general payments, the law presumes them, prima facie, to be made upon debts guaranteed by surety, rather than upon others.

## APPROVED ENDORSED NOTES.

Notes endorsed by another person than the maker, for additional security, the endorser being satisfactory to the payee.

When credit is given at public sales, the sales are generally made on approved endorsed notes. The meaning of the term is that the purchaser shall give his promissory note for the amount of the credit endorsed by another, which, if approved by the seller, shall be received in payment.

## ARBITRATION.

The investigation and determination of a matter or matters of difference between contending parties, by one or more unofficial persons, chosen by the parties, and called arbitrators or referees. Voluntary arbitration is that which takes place by mutual and free consent of the parties. It usually takes place in pursuance of an agreement, usually in writing, between the parties, termed a "submission." The determination of the arbitrators or referees is called an "award." A parol submission is good at common law. A submission to arbitration made pending an action relative to the matter, operates as a discontinuance of the suit.

Compulsory arbitration is that which takes place when the consent of one of the parties is enforced by statutory provisions. Any matter which the parties may adjust by agreement, or which may be the subject of a suit at law (except crimes) may be determined by arbitration. Any person who





is capable of making a valid and binding contract with regard to the subject, may, in general, be a party to a reference or arbitration. At common law arbitration is entirely voluntary, and depends upon the agreement of the parties, to waive the right of trial in court by a jury. A submission to arbitration is subject to revocation at any time before an award, and it is revoked by the death of one of the parties.

## ARREARS.

The remainder of an account or sum of money. Any money due and unpaid at a given time. "In arrears" means overdue and unpaid.

## ARTICLES OF AGREEMENT.

A written memorandum of the terms of an agreement.

The instrument should contain a clear and explicit statement of *the names of the parties*, with their additions for purposes of distinction; *the subject matter* of the contract, including the time, place, and all the important details of the manner of performance; the *promises* to be performed by each party; the *date*, which should be truly stated, and should be signed by the parties or their agents.

## ARTICLES OF CO-PARTNERSHIP.

A co-partnership is an association of two or more persons for the transaction of business with joint capital. Such an association of persons is not subject to the restrictions or limitations attached to a corporation, and each partner is individually responsible for the obligations contracted by the firm, or co-partnership, in case the capital invested by the partners in the partnership business is insufficient to satisfy all trade liabilities.

The following form of Articles of Co-partnership may be found useful:

### FORM OF ARTICLES OF CO-PARTNERSHIP.

Articles of Co-partnership made this ..... day of ....., by and between John Jones and William Smith, both of the city of ....., .....

The said parties hereby agree to form, and do form, a co-partnership for the purpose of carrying on the general produce and commission business, on the following terms and articles of agreement, to the faithful performance of which they mutually agree to bind themselves. The style and name of the firm shall be Jones & Smith, and shall commence on the ..... day of .....

Each of the said parties agree to contribute to the funds of the partnership the sum of ..... in cash, which shall be paid in, on, or before the first day of ....., to the business, and to the care and superintendence of the same.

All profits which may accrue to the said partnership shall be divided, and all losses happening to the said firm, whether from bad debts, depreciation of goods, or any other cause or accident, and all expenses of the business shall be borne by the said parties equally.

All the purchases, sales, transactions and accounts of the said firm shall be kept in regular books, which shall always be open to the inspection of both parties, and their legal representatives, respectively. An account of stock shall be taken, and an account between the parties shall be settled as often as once a year, and as much oftener as either party may desire, and in writing request.

Neither of the said parties shall subscribe any bond, sign or indorse any note of hand, accept, sign or indorse any draft or bill of exchange, or assume any other liability, verbal or written, either in his own name or in the name of the firm, for the accommodation of any other person or persons whatsoever, without the consent in writing of the other party; nor shall either party lend any of the funds of the co-partnership without such consent of the other party.

Neither party shall engage in any other business, nor shall either party withdraw from the joint stock any more than ..... per quarter, or per year.

On the dissolution of this co-partnership, if the said parties or their legal representatives cannot agree in the division of the stock then on hand, the whole co-partnership effects, except the debts due the firm, shall be sold at public auction, at which both parties shall be at liberty to bid and purchase like other individuals, and the proceeds be divided after paying the debts of the firm.

For the purpose of securing the performance of the foregoing agreements, it is agreed that either party, in case of any violation of them, or either of them, by the other, shall have the right to dissolve this co-partnership forthwith on his becoming informed of such violation.

IN WITNESS WHEREOF, The said parties have hereunto set their hands and seals, the day and year first above written.

JOHN JONES. (Seal)
WILLIAM SMITH. (Seal)

## ASSETS.

All the stock in trade, cash, and all available property belonging to a merchant or company or corporation. The property in the hands of an heir, executor, administrator, or trustee, which is legally or equitably chargeable with the obligations which such heir, executor, administrator or other trustee is, as such, required to discharge.

LEGAL ASSETS are such as constitute the fund for the payment of debts according to their legal priority.

PERSONAL ASSETS.—Good and personal chattels to which the executor or administrator is entitled.

REAL ASSETS are such as descend to the heir, as an estate in fee simple.





In the United States, generally, by statute, all the property of the deceased, real and personal, is liable for his debts, and, in equity, is to be applied as follows, when no statute prescribes a different order of application, exhausting all the assets of each class before proceeding to the next.

*First*—The personal estate not specifically bequeathed.

*Second*—Real estate devised or ordered to be sold for the payment of debts.

*Third*—Real estate descended but not charged with debts.

*Fourth*—Real estate devised, charged generally with the payment of debts.

*Fifth*—Generally, pecuniary legacies, pro rata.

*Sixth*—Real estate devised, not charged with debts.

## ASSIGN.

To make or set over to another.

To appoint, to select, to allot. To set forth, to point out.

## ASSIGNEE.

One to whom an assignment is made.

ASSIGNEE IN FACT is one to whom an assignment has been made in fact by the party having the right.

ASSIGNEE IN LAW is one in whom the law vests the right.

## ASSIGNMENT.

A transfer or making over to another of any property, real or personal, in possession or in action, or of any estate or right therein. A transfer by writing, as distinguished from one by delivery.

The deed by which the transfer is made is also called an assignment. To make an assignment, valid at law, the subject matter of it must have an existence, actual or potential, at the time of the assignment. But courts of equity will support an assignment not only of interests in action and contingency, but of things which have no present, actual or potential existence, but rest in mere possibility only.

The right of an insolvent debtor to make an assignment for the benefit of his creditors exists at common law, independent of statute, and when good in the state where made is good everywhere. The statutes of the several states should be examined regarding this subject.

Any words which show the intent of the parties to make a complete transfer, will work an assignment. The proper and technical words are "assign, transfer, and set over."

## ASSIGNOR.

One who makes an assignment.

## ASSURED.

A person who has been insured by some insurance company, or underwriter, against losses or perils mentioned in the policy of insurance. He is sometimes designated in maritime insurance by description, and not by name, as "for whom it may concern."

## ATTORN.

To turn over; to transfer to another money or goods; to assign to some particular use or service.

## ATTORNEY.

One put in the place, turn or stead of another, to manage his affairs; one who manages the affairs of another by direction of his principal.

## ATTORNEY IN FACT.

A person to whom the authority of another, who is called the constituent, is by him lawfully delegated. The term is employed to designate persons who act under a special agency, or a special letter of attorney, so that they are appointed in factum, for the special act to be performed.

## AUTHENTIC ACT.

An act which has been executed before a notary public or other officer authorized to execute such functions, or which is testified by a seal, or has been rendered public by the authority of a competent magistrate, or which is certified as being a copy of a public record.

An authentic act has been held to be full proof of the agreement contained in it, against the contracting parties and their heirs and assigns, unless it be declared and proved to be a forgery.

## AUTHENTICATION.

Acts done with a view of causing an instrument to be known and identified.

## AUTHORITY.

The lawful delegation of power by one person to another.

Authority coupled with an interest is an authority given to an agent for a valuable consideration, or which forms part of a security. Here the agent has an interest in the subject matter of the agency, and a limitation is thus placed upon the principal's power to terminate the agency.

Express authority is that given explicitly either in writing or verbally.

General Authority is that which authorizes the agent to do everything connected with a particular business, and it empowers him to bind his principal





by all acts done within the scope of his employment. General authority cannot be limited by any private order or direction not known to the party dealing with him. Limited Authority is where the agent is bound by precise instruction. Special Authority is that which is confined to an individual transaction. Naked Authority is where the principal delegates the power to the agent wholly for the benefit of the former. A naked authority may be revoked; an authority coupled with an interest is irrevocable. Unlimited Authority is where the agent is left to pursue his own discretion. Authority by law is such cases as where the law creates an agency, as where the law authorizes a wife to pledge her husband's credit, even against his will, it creates a compulsory agency, and her request is his request.

The delegation of authority may be by deed for any purpose whatever. When the act to be done must be done by or through the medium of a deed the authority to do such act must be delegated by a deed, and executed with all the forms necessary to render the instrument, by which the act is done, perfect. But a written authority is not necessary to authorize an agent to sign an unsealed paper. For most purposes the authority may be either in writing not under seal, or verbally, or by the mere employment of the agent, or from the conduct of the employer in sanctioning the acts of the agent.

## BAILMENT.

Bailment is the delivery of goods for some purpose, upon a contract, express or implied, that after the purpose has been fulfilled they shall be re-delivered to the bailor, or otherwise dealt with according to his directions, or kept till he reclaims them.

The distinction between bailment and sale, fundamentally, is that in bailment the identical thing delivered, in the same or altered form, is to be restored, and the title of the property is not changed; while in a sale there is no obligation to return the specific article, but the party receiving it is at liberty to return another thing of equal value either in the form of money or otherwise, and becomes a debtor to make the return, and the title to the property is changed.

The decision of the question as to whether a certain transaction is a bailment or sale is not always easily made, and frequently depends upon the understanding of the parties, the wording of the particular contract or the usages of trade, as where grain is deposited in a warehouse or elevator to be commingled with other grain, and it is not contemplated that the identical grain stored shall be returned, but only an equal amount of grain of the same kind and grade, in which cases the better doctrine seems to be that the transaction as between the parties, *viz.*, the owner of the grain and the depository, is a mere bailment, and does not pass title to the grain. But where the depository has the option of paying the market price in lieu of the return of a like quantity and quality of grain, the transaction is a sale.

Where goods or raw materials are sent to a manufacturer to be made into other articles or goods which are to be returned to the owner, the trans-

action is a bailment. But where such goods or materials are to be returned as altered or manufactured, or the money value of the same returned, or to be paid for in commodities, the transaction is a sale and not a bailment.

There are three general classes of bailments:

*First*—Those for the sole benefit of the bailor, or of a third person represented by him.

*Second*—Those for the sole benefit of the bailee, or of some one whom he represents, and

*Third*—Those for the benefit of both parties.

The first class is of two kinds: (a) Deposit, where personal property is to be kept for the depositor without reward, and to be returned when he requires it, and (b) Mandate, a bailment of personal property in regard to which the bailee engages to do some act without reward.

The second class is (a) Gratuitous Loan, a bailment of an article for a certain time, to be used by the bailee without paying for the use.

The third class is (a) Pledge or Pawn, a bailment of personal property as security for some debt or engagement; (b) Bailments for hire.

In the first class the law requires of the bailee only slight diligence, and holds him responsible only for losses attributable to his gross neglect.

In the second class the bailee is required to exercise extraordinary care over the thing bailed, and is responsible for slight neglect.

In the third class the bailee is required to exercise only ordinary diligence, and is answerable only for ordinary neglect.

The bailee is not an insurer.

## BALANCE SHEET.

A balance sheet is a summation of, or general balance of all accounts, but not of the particular items going to make up the several accounts.

Where a statute required the directors of mining corporations to post in the office of the company each month a "balance sheet or an itemized account," it was held that the publication of a balance sheet was not a sufficient compliance with the statute. The court said: "Each of these words has a well-known and definite meaning, entirely different from each other, and they cannot be construed to mean the same thing."

## BANK ACCOUNT.

A fund which merchants, traders and others have deposited into the common cash of some bank, to be drawn out by checks from time to time as the owner or depositor may require. The statement of the amount deposited and drawn, which is kept in duplicate, one in the depositor's bank book and the other in the books of the bank.

## BANK NOTES or BANK BILLS.

The promissory notes of incorporated banks, payable to bearer on demand, and designed to be circulated as money for an indefinite period.





Bank notes are not legal tender, but current bank notes are regarded as a lawful tender in payment of debts, unless the debtor makes objection to them when offered.

The bona fide holder of a bank note can recover against the bank or retain it against the real owner, though it was lost or stolen. The holder, however, must have come by the note in the usual course of business, and for a calculable consideration, if he is to retain it against the real owner. The holder of a lost or stolen bank note does not get an absolute title which he can transfer to a purchaser who has notice of the loss or theft. The person disputing the holder's title must show that the holder came by the note in bad faith.

Where a bank note has been partially or wholly destroyed the person to whom it belonged can recover from the bank. Sufficient and satisfactory evidence as to the identity and ownership of the note, and the destruction thereof being given by the owner, such questions being questions of fact for the jury. An indemnity bond to secure the bank has been held to be necessary, but the question is still open.

## BANKS.

A bank is an institution for the custody and loan of money, the exchange and transmission of the same by means of bills and drafts, and the issuance of its own promissory notes, payable to bearer, as currency; or for the exercise of one or more of these functions.

Banks are of three kinds: banks of deposit, banks of discount, and banks of circulation; and comprise National, State, Savings and Private banks, and in a popular sense Loan and Trust companies.

The distinction between a bank and a trust company is well defined. The powers of the trust company depend upon the terms of its charter, but they are not banking powers. The trust company, like a savings bank, pays interest upon deposits, but its deposits are strictly loans, not subject to check. It may not issue its own notes for circulation, nor does it buy or sell or exchange in the ordinary course of its dealings.

To a large degree the limits of any bank's powers are defined by statute, or its charter.

## BARGAIN.

Means an agreement between persons concerning the loan, exchange or sale of property. More technically, a bargain is a mutual agreement or contract between two parties, the one to sell goods or lands, and the other to buy them.

## BARTER.

Is a contract by which the parties exchange goods. The term is not applied to contracts concerning land, but to such only as relate to goods and chattels.

## BEARER.

The bearer of a bill or note means a person in possession of a bill or note which is payable to bearer.

## BID.

An offer to pay a specified price for an article about to be sold at auction. An offer to perform a contract for work and labor or to supply materials at a specified price.

## BIDDER.

One who offers to pay a specified price for an article offered for sale at a public auction, or offers to perform a contract for work and labor or supply materials at a specified price.

The bidder has a right to expressly withdraw his bid at any time before it is accepted, which acceptance is generally manifested by knocking down the hammer; or the bid may be withdrawn by implication, as by an adjournment of the sale before the article under the hammer is knocked down.

The bidder is required to act in good faith, and any combination between himself and others to prevent a fair competition, would void the sale made to himself. But there is nothing illegal in two or more persons agreeing together to purchase a property at sheriff's sale, fixing a certain price which they are willing to give, and appointing one of their number to be the bidder.

## BILAN.

A term used in Louisiana to designate a book in which bankers, merchants and traders write a statement of all they owe and all that is due to them.

A balance sheet.

## BILL.

In mercantile law the creditor's statement in writing of his claim, specifying the items. If differs from an "account stated" in this, that an account stated is a statement which has been assented to by both parties, while a bill is the creditor's statement. It has been held in New York that merely presenting a bill, no payment or agreement as to the amount being shown, does not prevent the party from suing for a larger sum.

## BILL OF EXCHANGE.

A written order from one person upon another, directing the person to whom it is addressed to pay to a third person a certain sum of money therein named.

An open (unsealed) letter addressed by one person to another directing him, in effect, to pay, absolutely and at all events, a certain sum of money therein named, to a third person, or to any other to whom that third person





may order it to be paid, or it may be payable to bearer or to the drawer himself. A bill of exchange may be negotiable or non-negotiable. If negotiable it may be transferred either before or after acceptance.

The person making the bill, called the drawer, is said to draw upon the person to whom it is directed, and undertakes impliedly to pay the amount with certain costs if he refuses to comply with the command. The drawee is not liable on the bill till after acceptance, and then becomes liable as principal to the extent of the terms of the acceptance; while the drawer is liable to the payee and indorsees conditionally upon the failure of the acceptor to pay. The liabilities as between indorsers and indorsees are subject to the same rules as those of indorsers and indorsees on promissory notes.

A foreign bill of exchange is one of which the drawer and drawee are residents of countries foreign to each other. In this respect the states of the United States are foreign to each other. An inland bill of exchange is one of which the drawer and drawee are residents of the same state or country. The distinction between foreign and inland bills of exchange becomes important with reference to the question whether protest and notice are to be given in case of non-acceptance.

The bill must be written. It should be properly dated both as to place and time of making, but this is not essential to the validity of the bill; if not dated it will be considered as dated at the time it was made. Bills are sometimes ante or post-dated for convenience. The time of payment should be expressed, but if no time is mentioned it is considered as payable on demand. The place of payment may be prescribed by the drawer, or by the acceptor on his acceptance, but is not generally done, in which case the bill is considered as payable and to be presented at the usual place of business of the drawee, at his residence where it was made, or to him personally anywhere. The order or request to pay must be absolute and not contingent, but mere civility in the terms does not alter the legal effect of the instrument. It must contain words requiring *payment*. To make a bill negotiable it must be payable to the order of the payee or to bearer, or must contain words of negotiability. But negotiability is not essential to the validity of a bill.

The sum for which the bill is drawn should be written in full in the body of the instrument, as the words in the body govern in case of doubt. And the amount must be fixed and certain and not contingent, and it must be payable in money and not in merchandise; and is not negotiable if payable in "bank bills" or "currency" or other substitutes for legal money of similar denominations. It is not necessary, however, that the money should be current in the place of payment, or where the bill is drawn, it may be in the money of any country whatever.

"Value Received" is of no use in a negotiable bill.

The bill should be subscribed by the drawer, though it is sufficient if his name appears in the body of the instrument; and should be addressed to the drawee by the christian name and surname, or by the full style of the firm.

The parties to a bill are the drawer, the drawee, the acceptor and the payee. Other persons connected with a bill in case of a transfer are the indorser, indorsee and holder. All the various parties need not be different persons. It sometimes happens that one or more of the apparent parties to a bill are fictitious persons. The rights of a bona fide holder are not thereby prejudiced, even when the payee and indorser are fictitious or even where the drawer and payee are both fictitious.

## BILL OF LADING.

"The written evidence of a contract for the carriage of and delivery of goods."

"A written acknowledgment of the receipt of certain goods and an agreement for a consideration to transport and to deliver the same at a specified place to a person therein named or his order.

A through bill of lading made by a carrier by land is one where the carrier contracts to transport over its own line for a certain distance certain merchandise or stock, there to deliver the same to its connecting lines to be transported to the place of destination at a fixed rate for the whole distance.

A bill of lading should contain the name of the shipper or consignor, the name of the consignee, the names of the vessel and her master, the places of shipment and destination, the price of the freight, and, in the margin, the marks and numbers of the things shipped.

Though it is not necessary that the shipper should sign the bill of lading, yet if the terms of the bill restrict the carrier's common law liability, his assent thereto must be shown. This assent need not be express; it is sufficiently indicated by an acceptance of the bill of lading containing the restrictions.

A bill of lading is usually made in three or more original parts, one of which is sent to the consignee with the goods, one or more others are sent to him by other conveyances, one is retained by the merchant or shipper, and one should be retained by the carrier. Where one is marked "original" and the others "duplicate," "triplicate," etc., they are all in effect originals.

Where a bill of lading is given, and accepted without objection, it is the real contract by which the mutual obligations of the parties are to be governed. Exceptions in a bill of lading are to be construed most strongly against the carrier.

## BILL PAYABLE.

A promissory note whereby one has engaged to pay money, or a bill of exchange accepted. It is so called as being payable by the party. An account is usually kept of such bill in a book entitled "Bills Payable," and also in the ledger.

## BILL RECEIVABLE.

A promissory note, bill of exchange, or other written security for money payable at a future date, which a party holds. So called because the amounts





which they represent are receivable by the party. An account of same is usually kept in a "Bills Receivable" book and the ledger.

## BILL OF SALE.

A written agreement generally under seal, by which one person transfers his rights to or interests in goods and personal property to another. It is especially used where immediate possession of the goods or chattels cannot be given.

## BOND.

An obligation in writing and under seal.

## BREACH OF TRUST.

The wilful misappropriation, by a trustee, of a thing which has been lawfully delivered to him in confidence.

The distinction between larceny and a breach of trust is to be found chiefly in the terms or way in which the thing was taken originally into the party's possession; and the rule seems to be, that whenever the article is to be obtained upon a fair contract not for a mere temporary purpose, or by one who is in the employment of the deliverer, then the subsequent misappropriation is to be considered as an act of breach of trust. This rule, however, is subject to many distinctions.

## BRIBE.

The gift or promise, which is accepted, of some advantage as the inducement for some illegal act or omission; or of some illegal emolument, as a consideration for preferring one person to another, in the performance of a legal act.

## BRIBERY.

The receiving or offering of any undue reward by or to any person whomsoever, whose ordinary profession or business relates to the administration of public justice, in order to influence his behavior in office, and to incline him to act contrary to his duty and to known rules of honesty and integrity. The term now extends to the offense of giving a bribe to many other classes of officers. An attempt to bribe, though unsuccessful, has been held to be criminal and the offender may be indicted.

## BROKER.

One engaged for others in the negotiation of contracts relative to property, with the custody of which they have no concern.

A broker is, for some purposes, treated as the agent of both parties; but, in the first place, he is deemed to be the agent only of the person by whom he is originally employed, and does not become the agent of the other until

the bargain or contract has been definitely settled, as to the terms between the principals, when he becomes the agent of both parties for the purpose of executing the bought and sold notes.

A commission merchant differs from a broker in that he may buy and sell in his own name without disclosing his principal, while the broker can buy and sell only in the name of his principal. A commission merchant has a lien upon the goods for his charges, advances and commissions, while the broker has no control of the property and is only responsible for bad faith.

*Bill and Note Brokers* negotiate the purchase and sale of bills of exchange and promissory notes. They are paid a commission by the seller, and it is not their custom to disclose the names of their principals. There is an implied warranty that what they sell is what they represent it to be; and should a bill or note sold by them turn out to be a forgery, they are held to be responsible.

*Exchange Brokers* negotiate the sale and purchase of bills of exchange drawn on foreign countries, or on other places in this country.

*Insurance Brokers* procure insurance and negotiate between insurers and insured.

*Merchandise Brokers* negotiate the sale of merchandise without having possession or control of it, as factors have.

*Pawnbrokers* lend money in small sums, on the security of personal property, generally at usurious rates of interest. They are licensed by the authorities, and sometimes excepted from the usuary laws.

*Real Estate Brokers* negotiate the sale or purchase of real estate, and sometimes procure loans on mortgage security, collect rents, and attend to the letting and leasing of houses and lands.

*Ship Brokers* negotiate the purchase and sale of boats and ships, and the business of freighting vessels. They usually receive a commission from the seller only.

*Stock Brokers* are employed to buy and sell shares of stock in incorporated companies, and the indebtedness of governments.

## BROKERAGE.

The trade or occupation of a broker; the commissions paid to a broker for his services.

## CAPITAL.

The sum of money which a merchant, banker, or trader adventures in any undertaking, or which he contributes to the common stock of a partnership, and also the fund of a trading company.

Capital signifies the actual estate, whether in money or property, owned by an individual or a corporation; it is the fund upon which it transacts its business, which would be liable to its creditors, and which, upon insolvency would pass to a receiver.

Money Capital, as used in an act respecting taxation of national bank stock, includes shares of stock and other interests, owned by individuals in





all enterprises in which the capital employed in carrying on its business is money, where the object of the business is making profit by its use as money.

## CAPITAL STOCK.

The sum divided into shares, which is raised by mutual subscription of the members of a corporation. It is the sum upon which dividends are to be paid. The term is used to indicate the amount of capital which the charter or articles of incorporation provide for; the entire sum agreed to be contributed, whether paid in or not.

## CERTIFIED CHECK.

A check which has been recognized by the proper officer as a valid appropriation of the amount of money therein specified to the person therein named, and which bears upon itself the evidence of such recognition. After certification the bank is bound as a direct and original promisor to the payee, and a new contract exists on which the payee has a right of action directly against the bank.

## CHECK.

A written order or request addressed to a bank or persons carrying on the business of banking, by a party having money in their hands, desiring them to pay, on presentment, to a person therein named or bearer, or to such person or order, a named sum of money. Checks are in use only between banks and bankers and their customers, and are designed to facilitate banking operations. It is of their very essence to be payable on demand, because the contract between the banker and the customer is that the money is payable on demand.

As between the holder of the check and the endorser it is required that due diligence be used in presenting it, and, in case of non-payment, it should be protested in order to hold the drawer and endorsers. But it is not necessary to use diligence in presenting an ordinary check in order to charge the drawer, unless he has received damage by the delay.

In common with other kinds of negotiable paper, they must contain an order to pay money, and words of negotiability. This enables a bona fide holder for value to collect the money without regard to the previous history of the paper.

It is part of the implied contract of the banker that only checks properly signed by the person or firm keeping the account at the banker's shall be paid. Checks must, therefore, be properly signed by such person.

Giving a check is not payment unless the check is paid. Receiving a certified check is payment.

## CHOSE.

Personal property. Thing.

## CHOSE IN ACTION.

A personal thing of which the owner has not the possession but merely a right of action for their possession; also, a right to receive or recover a debt,

or money, or damages for breach of contract, or for a tort connected with a contract, but which cannot be enforced without an action.

At common law a Chose in Action was not assignable. This naturally led to difficulties and the courts gradually yielded to the pressure of necessity and, without a statute, from an early period, in equity, they have viewed the assignment of a chose in action for a valuable consideration as a contract by the assignor to permit the assignee to use his name for the purpose of recovery. And now, at common law, the assignee is entitled to sue and recover in the name of the assignor, and the debtor will not be allowed, by way of defense to such suit, to avail himself of any payment to or release from the assignor, if made or obtained after notice of the assignment.

## CLERK.

A person in the employ of a merchant, who attends only to a part of his business, while the merchant himself superintends the whole. He differs from a factor in this, that the latter supplies, wholly, the place of his principal in respect to the property consigned to him.

## CODICIL.

Some addition to, or qualification of, a last will and testament. All codicils are part of the will, and must be executed with the same formalities. It is not necessary that the codicil be on the same piece of paper in order that it may operate as a republication of the will. It has been held that a codicil duly executed, and attached or referring to a paper defectively executed as a will, has the effect to give operation to the whole as one instrument. There may be numerous codicils to the same will. In such cases the latter ones operate to revive and republish the earlier ones.

## COMMON CARRIER.

A common carrier is one whose business, occupation, or regular calling is to carry chattels for all persons who may choose to employ and remunerate him.

The definition includes carriers by land and water. They are, on the one hand, stage coach and omnibus proprietors; railroad and street railway companies; truckmen, wagoners, and teamsters, carmen and porters; and express companies, whether such persons undertake to carry goods from one portion of the same town to another, or through the whole extent of the country, or even from one State or Kingdom to another. And, on the other hand, this term includes the owners and masters of every kind of vessel or water craft who set themselves before the public as the carriers of freight of any kind for all who choose to employ them, whether the extent of their navigation be from one continent to another or only in the coasting trade, or in river or lake transportation, or whether employed in lading or unlading goods or in





ferrying, with whatever mode of motive power they may adopt. A pipe line company is a common carrier bound to receive and transport, for all persons alike, all oil instrusted to its care, and is not in any sense an agent for the person who employs it to transfer oil. Telegraph or telephone companies are not carriers; but they are subject to the rules governing common carriers and others engaged in like public employment.

Common carriers are responsible for all loss or damage during transportation, from whatever cause, except the act of God or the public enemy. The act of God is held to extend only to such inevitable accidents as occur without the intervention of man's agency, which could not be avoided by the exercise of due skill and care; but where freight cars are stopped by a flood and the contents stolen, the loss is not due to inevitable accident, act of God, or insurrection. The carrier is not responsible for losses occurring from natural causes, such as frost, fermentation, evaporation or natural decay of perishable articles, or the natural and necessary wear in the course of transportation, or the shipper's carelessness, provided the carrier exercises all reasonable care to have the loss or deterioration as little as practicable.

Carriers, both by land and water, when they undertake the general business of carrying every kind of goods, are bound to carry for all who offer; and if they refuse, without any just excuse, they are liable for damages. But the business of a common carrier may be restricted within such limits as he may deem expedient, if an individual, or which may be prescribed in its grant of powers, if a corporation, and he is not bound to accept goods out of the line of his usual business. But should the carrier accept goods not within the line of his business, he assumes the liability of a common carrier as to the specific goods accepted. The carrier may require freight to be paid in advance; but in an action for not carrying, it is only necessary to allege a readiness to pay freight. It is not required to prove or allege a tender, if the carrier refuses to accept the goods for transportation. The carrier is entitled to a lien upon the goods for freight, and for advances made to other carriers. The consignor is prima facie liable for freight; but the consignee may be liable when the consignor is his agent, or when the title is in him and he accepts the goods.

Common carriers may qualify their common-law responsibility by special contract. A carrier can not exact as a condition precedent that a shipper must sign a contract in writing limiting the common-law liability. A contract to qualify the common-law liability may be shown by proving a notice, brought home to and assented to by the owner of the goods or his authorized agent, wherein the carrier stipulates for a qualified liability. Or it may be reduced to writing, in the form of a bill of lading. A contract by a carrier limiting his liability for negligence is governed by the law of the place where the contract was made. But the carrier cannot contract against his own negligence or the negligence of his employes or agents.

Railroad companies, steamboats and all other carriers who allow express companies to carry parcels and packages on their cars, or boats, or other vehicles, are liable as common carriers to the owners of goods for all loss

or damage which occurs, without regard to the contract between them and such express carriers.

Railways, steamboats, packets, and other common carriers of passengers, although not liable for injuries to their passengers without their fault, are nevertheless responsible for the baggage of such passengers intrusted to their care as common carriers of goods; and such responsibility continues for a reasonable time after the goods have been placed in the warehouse or depot of the carrier, at the place of destination, for delivery to the passenger or his order. Where one company checks baggage through a succession of lines owned by different companies, each company becomes responsible for the whole route. The baggage check given at the time of receiving such baggage is regarded as prima facie evidence of the liability of the company. It stands in the place of a bill of lading. Baggage will not include merchandise. Jewelry and a watch in a trunk, being female attire, are regarded as proper baggage. But money, except a reasonable amount for expenses, is not properly baggage.

The responsibility of common carriers begins upon delivery of the goods for immediate transportation. A delivery at the usual place of receiving freight, or to the employes of the company in the usual course of business, is sufficient, but where carriers have a warehouse at which they receive goods for transportation, and goods are delivered there not to be forwarded until some event occurs; the carriers are, in the meantime, only responsible as depositaries; and where goods are received as wharfingers, or warehousers, or forwarders, and not as carriers, liability will be incurred only for ordinary negligence. Where goods are injured because of insecure packing or boxing, the carrier is not liable; but where it does not appear that they were received as in bad order, or that they were so in fact, the presumption is that they were in good order. Where there was less than a car load of goods, and there was no agreement on the part of the carrier to transport them in a ventilated car, although it was requested by the carrier that they should be so shipped, it was held that the carrier was not liable for the loss of perishable goods.

The responsibility of the carrier terminates after the arrival of the goods at their destination and a reasonable time has elapsed for the owner to receive them in business hours. After that, the carrier may put them in a warehouse, and is only responsible for ordinary care. Where goods are delivered to the consignee in violation of instructions not to deliver without a bill of lading, the company is liable to the shipper, for loss thereby sustained. In carriage by water, the carrier is, as a general rule, bound to give notice to the consignee of the arrival of the goods; and the delivery of the goods from a ship must be according to the custom and usages of the port and such delivery will discharge the carrier of his responsibility.

Where goods are so marked as to pass over successive lines of railways, or other transportation having no partnership connection in the business of carrying, the successive carriers are only liable for damage or loss occurring during the time the goods are in their possession, for transportation. A carrier may stipulate that he shall be released from liability after goods have





left the road. Where one of the carriers has contracted clearly and unequivocally to deliver goods at their destination, *i. e.*, to carry them over the whole route, his liability will continue until final delivery; but the carrier upon whose line the damage or loss has occurred will also be liable. Where the connecting carrier refuses or unreasonably delays to accept goods, the original carrier while so holding them is a carrier, and the liability as such continues until they are warehoused. A contract to transport goods from or to points not on the carrying line, and without the State by which it is incorporated, is held to be good.

The acts of agents of corporations who are common carriers, such as railway and steamboat companies, will bind their principals to the full extent of the business intrusted to their control, whether they follow their instructions or not. Nor will it excuse the company because the servant or agent acted wilfully in disregard of his instructions.

The contracts of common carriers, like all other contracts, are liable to be controlled and qualified by the known usages and customs and course of the business in which they are engaged; and all who do business with them are bound to take notice of such usages and customs as are uniform, of long standing, and generally known and understood by those familiar with such transactions.

The liability of a common carrier may, at common law, be limited by the character of, or defects in, the subject-matter of the contract. The limitation was formerly applied to contracts for the carriage of slaves, and it was held in such cases that a carrier was not an insurer, and was only liable for the want of skill and care. The carrier of animals is not answerable for the damages caused by the conduct or propensities of the animals themselves; but in other respect the liability for injury to live stock is as great as it would be under a contract for the carriage of inanimate objects.

## COMPROMISE.

An agreement made between two or more parties as a settlement of matters in dispute. Such settlements are sustained at law; and are highly favored. The amount in question must, it seems, be uncertain. Where a debtor tenders part of a disputed claim to the creditor in full satisfaction, if the latter accepts the tender, he is bound by the terms thereof. An offer of settlement not accepted, does not bind either party. There can be no compromise of a criminal charge.

## CONFIRMATION.

A contract by which that which was voidable is made firm and unavoidable. Where a party, acting for himself or by a previously authorized agent, has attempted to enter into a contract, but has done so in an informal or invalid manner, afterwards confirms the act, he thereby renders it valid, in which case it will take effect as between the parties from the date of the original making.

To make a valid confirmation, the party must be apprised of his rights, and where there has been a fraud in the transaction he must be aware of it and intend to confirm his contract.

## CONFUSION OF GOODS.

Such a mixture of the goods of two or more persons, that they cannot be distinguished.

Where this is caused by the wilful act of one party without the other's consent, the one causing the mixture must separate them at his own peril, and must bear the whole loss. But if the goods can be distinguished, a wilful mixture will not justify the other party taking other than his own goods, upon the ground that they have been intermingled. The rule extends no farther than necessity requires, and has been held not to cover cases where the confusion was the result of negligence merely, or accident.

When the confusion takes place by the mutual consent of the owners, they have an interest in the mixture in proportion to their respective shares.

## CONFUSION OF RIGHTS.

A union of the qualities of debtor and creditor in the same person. The effect of such a union is, generally, to extinguish the debt.

## CONSIDERATION.

An act of forbearance, or the promise thereof, which is offered by one party to an agreement, and accepted by the other as an inducement to that other's act and promise.

Consideration should not be confounded with motive. "The former means something of value in the eye of the law," while motive is the inducement. Motive may sometimes be the consideration for an agreement and consideration the motive. Consideration has been treated as the very life and essence of a contract; and a parol contract or promise for which there was no consideration could not be enforced at law.

The consideration is generally conclusively presumed from the nature of the contract, when sealed; but in some of the States by law, and in others by statute, the want or failure of consideration may be a good defence against an action on a sealed instrument or contract.

Negotiable instruments carry with them prima facie evidence of consideration.

Concurrent Considerations are those which arise at the same time or where the promises are simultaneous and reciprocal.

Continuing Considerations are those which consist of acts which must necessarily continue over a considerable period of time.

Executed Considerations are acts done or values given at the time of making the contract.





Executory Considerations are promises to do or give something at a future day.

Good Considerations are those of blood, natural love or affection, and the like. Motives of natural duty, generosity and prudence come under this class. The term is sometimes used in the sense of a consideration valid in point of law; and it then includes a valuable as well as a meritorious consideration. Generally, however, good is used in antithesis to valuable.

Illegal Considerations are acts, which if done, or promises, which if enforced, would be prejudicial to the public interest.

Impossible Considerations are those which can not be performed.

Moral Considerations are such as are based upon a moral duty.

Past Consideration is an act done before the contract is made, and is ordinarily by itself no consideration for a promise. On principle it should not be. Possible exceptions might be services rendered on request, without definite promise or reward, and voluntarily doing something which one was legally bound to do. Also a promise to pay a debt barred by the statute of limitations.

Valuable Considerations are either some benefit conferred upon the party by whom the promise is made, or upon a third party at his instance or request; or some detriment sustained at the instance of the party promising, by the party in whose favor the promise is made. The detriment to the promisee must be a detriment on entering into the contract and not from the breach of it. A contract upon a good consideration is considered merely voluntary, but is good both in law and equity as against the grantor himself when it has once been executed; but void against creditors and subsequent bona fide purchasers for value. A valuable consideration alone is good against subsequent purchasers and attaching creditors.

Among valuable considerations may be mentioned these:

In general, the waiver of any legal or equitable right at the request of another is sufficient consideration for a promise. An invalid or not enforceable agreement to forbear is not a good consideration; for suit may be brought immediately after the promise is made. The forbearance must be an enforceable agreement for a reasonable time. But if a meritorious claim is made in good faith, a forbearance to prosecute it may be a good consideration for a promise, although on the facts or on the law the suit would have failed of success.

The prevention of litigation is a valid and sufficient consideration; for the law favors the settlement of disputes. Thus, a compromise or mutual submission of demands to arbitration is a highly favored consideration at law. The giving up a suit instituted to try a question respecting which the law is doubtful, or is supposed by the parties to be doubtful, is a good consideration for a promise.

Incurring a legal liability to a third party is a valid consideration for a promise by the party at whose request the liability was incurred.

Refraining from the use of liquor and tobacco for a certain time, at the request of another, is a sufficient consideration for a promise by the latter to pay a sum of money.

The assignment of a debt or chose in action with the consent of the debtor is a good consideration for the debtor's promise to pay the assignee. It is merely a promise to pay a debt due, and the consideration is the discharge of the debtor's liability to the assignor. Work and service are perhaps the most common considerations.

In the case of deposit or mandate it was once held that there was no consideration; the reverse is now usually maintained. In these cases there does not appear to be any benefit arising from the bailment to the promisor. The definitions of mandate and deposit exclude this. Nor does any injury at the time accrue to the promisee; the bailment is for his benefit entirely.

Mutual promises made at the same time are concurrent considerations, and will support each other if both be legal and binding.

Marriage is now settled to be a valuable consideration, though it is not convertible into money or pecuniarily valuable.

Illegal considerations can be no foundation for a contract. Violations of morality, decency and public policy are in contravention of common law; as, contracts to commit, conceal or compound a crime. So, a contract for future illicit intercourse, or in fraud of a third party, will not be enforced. But the act in question is not always a criterion; *e. g.*, as to immoral considerations that which the law considers is whether the promise has a tendency to produce immoral results; hence while a promise of future illicit cohabitation is an illegal consideration; a promise founded upon past illicit cohabitation is not illegal, but simply voluntary and governed by the same rules as other past executed considerations. The illegality created by statute exists when the statute either expressly prohibits a particular thing, or affixes a penalty which implies prohibition, or implies such prohibition from its object and nature. If any part of the consideration is void, as against the law, it is void in toto; but contra, if the promises be divisable and apportionable to any part of the consideration, the promise so far as not attributable to the illegal consideration might be valid.

A contract founded upon an impossible consideration is void. This impossibility must be a natural or physical impossibility; but it may be otherwise when the consideration is valid at the time the contract was formed but afterwards became impossible.

An executory consideration which has totally failed will not support a contract when the performance of the consideration forms a condition precedent to the performance of the promise.

A past consideration will not generally be sufficient to support a contract. It is something done before the obligor makes his promise, and, therefore, cannot be a foundation for that promise, unless it has been executed at the request (express or implied) of the promisor. Such a request plainly implies a promise of fair and reasonable compensation.

As to time, considerations may be of the past, present or future. Those which are present or future will support a contract not void for other reasons. When the consideration is to do a thing hereafter, and the promise has been





accepted, and a promise in return founded upon it, the latter promise rests upon sufficient foundation, and is obligatory.

The adequacy of the consideration is generally immaterial. There is no case where mere inadequacy of price, independent of other circumstances has been held sufficient to set aside a contract between parties standing on equal ground and dealing with each other without imposition or oppression. The adequacy of the consideration does not affect the contract, but the consideration must be real and not merely colorable; a dollar would be a sufficient consideration for any promise except one to pay a larger sum of money absolutely.

## CONSIGNEE.

One to whom a consignment is made. When the goods consigned to him are his own, and they have been ordered to be sent, they are at his risk the moment the consignment is made according to his direction; and the persons employed in the transmission of his goods are his agents. When the goods are not his own, if he accept the consignment, he is bound to follow the instructions of his consignor.

## CONTRACT.

An agreement enforceable at law, made between two or more persons, under which rights are acquired by one or both to act, or forbearance on the part of one or the other or others.

At common law, contracts have been divided into contracts of record, contracts by specialty, and simple and parol contracts.

Contracts of Record are those which are evidenced by matter of record, such as judgments, recognizances, and statutes staple. These have been said to be the highest class of contracts.

Contracts by Specialty, or Specialties, are those which are under seal; as deeds and bonds. Though little of the real solemnity now remains, and a scroll is substituted, in most of the States, for the seal, the distinction with regard to specialties has still been preserved intact except when abolished by statute. The distinction is not now sustained by reason.

Simple and Parol Contracts are those not of record or under seal. They are the lowest class of express contracts, and answer most nearly to our general definition of contracts. The only distinction between a simple written contract and oral contracts is their mode of proof. Simple contracts may be either express or implied. Implied contracts may be either implied in law or implied in fact. The only difference between an express contract and one implied in fact, is in the mode of substantiating it. An express agreement is proved by express words, either written or spoken. An implied contract is proved by circumstantial evidence showing that the parties intended to contract.

Entire Contracts are those the consideration of which is entire on both side-

Executed Contracts are those in which nothing remains to be done by either party, and where the transaction has been completed, or was completed at the time the contract or agreement was made.

Executory Contracts are those in which some act remains to be done.

Express Contracts are those in which the terms of the contract or agreement are openly and fully uttered and avowed at the time of making.

Implied Contracts are either implied in law or in fact. A contract implied in law arises where some pecuniary inequality exists in one party relatively to the other which justice requires should be compensated, and upon which the law operates by creating a debt to the amount of the required compensation. A contract implied in fact arises where there was not an express contract, but there is circumstantial evidence showing that the parties did intend to make a contract; for instance, if one orders goods from a tradesman or employs a man to work for him, without stipulating the price or wages, the law raises an implied contract, in fact, to pay the value of the goods or services. In the former class the implied reasonable contract is a pure fiction, having no real existence; in the latter it is inferred as an actual fact.

Illegal Contracts are agreements to do acts prohibited by law, as to commit a crime; to injure another, as to publish a libel.

Every contract should be so complete as to give either party his action upon it; both parties must assent to all its terms; there must be a good and valid consideration, which must be proved though the contract be in writing, except in bills and notes, which are of themselves prima facie evidence of consideration. And in other written contracts, when the consideration is acknowledged, it is prima facie evidence thereof, but open to contradiction by parol testimony. There must be a thing to be done which is not forbidden by law, or one to be admitted which is not enjoined by law. If against public policy, a contract is void as is one which is fraudulent, immoral or forbidden.

## CONVEYANCE.

The transfer of the title of land from one person, or class of persons, to another. The instrument for effecting such transfer.

## COPY.

A true transcript of an original writing. Copies verified by the great seal or by the seal of a court are Exemplifications. Copies cannot be given in evidence unless proof is made that the originals from which they are taken are lost or are in the power of the opposite party, and, in the latter case, that notice has been given such party to produce the original.

## COPYRIGHT.

The exclusive privilege, secured according to certain legal forms, of printing or otherwise, multiplying, publishing, and vending copies of certain literary or artistic productions.





## COST.

Is that which is actually paid for goods.

## COUPONS.

Those parts of a commercial instrument which are to be cut, and which are evidence of something connected with the contract mentioned in the instrument. They are generally attached to bonds or certificates of loan where the interest is payable at particular periods, and, when the interest is paid, they are cut off and delivered to the payor. In the United States they have been held to be negotiable instruments, if payable to bearer or order, upon which suit may be brought, though detached from the bond, but otherwise, if the bond to which the coupons were attached was not negotiable, or if the coupons were not payable to bearer or order.

Interest on coupons may be recovered in a suit on the coupons and the rate of interest provided for in the bond continues on the coupon until it is merged in judgment. A suit on the coupon is not barred by the statute of limitations unless a suit on the bond would be barred, otherwise, however, where the coupons have passed into the hands of a party who does not hold the bonds.

## COVENANT.

In contracts a covenant is an agreement between two or more persons, entered into by deed, whereby one of the parties promises the performance or non-performance of certain acts or that a given state of things does or shall, or does not or shall not, exist.

## CREDIT.

The ability to borrow on the opinion conceived by the lender that he will be repaid. A debt due or to become due as distinguished from debt which is a debt owing. The time allowed by the creditor for the payment of goods sold by him to the debtor.

## CREDITOR.

He who has the right to require the fulfillment of an obligation or contract. A person to whom any obligation is due.

## CURRENCY.

That which passes among the people for money, whether gold or silver coin or bank notes.

## CURRENT MONEY.

That which is in general use as a medium of exchange. That money

which is commonly used and recognized as such; current bank notes, such as are convertable into specie at the counter where they were issued.

## CUSTOM.

Such a usage as by common consent and uniform practice has become the law of the place, or of the subject matter, to which it relates.

## CUSTOM HOUSE.

A place apopinted by law, in ports of entry, where importers of goods, wares and merchandise are bound to enter the same, in order to pay or secure the duties or customs due to the government.

## CUSTOM HOUSE BROKER.

A person authorized to act for parties, at their option, in the entry or clearance of ships and the transaction of general business.

## CUSTOM OF MERCHANTS.

A system of customs acknowledged and taken notice of by all nations, and which are, therefore, a part of the general law of the land.

## DAILY.

Every day. Where a statute requires an advertisement to be published in a daily newspaper it is such if it uses the term "daily newspaper" in contradistinction to the term "weekly," "semi-weekly" or "tri-weekly" newspaper. The term was used and is to be understood in its popular sense, and in this sense it is clear that a paper which, according to its usual custom, is published every day of the week except one, is a daily newspaper; otherwise a paper which is published every day except Sunday would not be a daily newspaper.

## DATE.

The designation or indication in an instrument of writing of the time and place when and where it was made.

A date is necessary to the validity of a policy of insurance; but where there are separate underwriters, each sets down the date of his own signing, as this constitutes a separate contract.

## DAY.

The space of time which elapses while the earth makes a complete revolution on its axis.





Generally, in legal signification, the term includes the time elapsing from one midnight to the succeeding one, but it is also used to denote those hours during which business is ordinarily transacted (frequently called a business day), as well as that portion of time during which the sun is above the horizon (sometimes called a solar day), and in addition, that part of the morning or evening during which sufficient of its light is above for the features of a man to be reasonably discerned.

Where a party is required to take action within a given number of days in order to secure or assert a right, the day is to consist of twenty-four hours, that is the popular and legal sense of the term.

The time for completing commercial contracts is not limited to banking hours.

It is said that there is no general rule in regard to including or excluding days in the computation of time from the day of a fact or act done, but that it depends upon the reason of the thing and the circumstances of the case. Perhaps the most general rule is to exclude the first day and include the last. Such is the rule as to negotiable paper.

## DAYS OF GRACE.

Certain days allowed to the acceptor of a bill or the maker of a note in which to make payment, in addition to the time contracted for by the bill or note itself.

They are so called because formerly they were allowed as a matter of favor; but, the custom of merchants to allow such days of grace having grown into law, and been sanctioned by the courts; and the days of grace allowed are three. All bills of exchange are by the law merchant entitled to days of grace as of right. The statute of Anne making promissory notes negotiable confers the same right on those instruments. This statute has been generally adopted throughout the United States. Bank checks are due on presentation, and are not entitled to days of grace.

Where there is an established usage of the place where the bill is payable to demand payment on the fourth or other day instead of the third, the parties to it will be bound by such usage. When the last day of grace happens on Sunday or a general holiday, as the Fourth of July, Christmas day, etc., the bill is due on the day previous, and must be presented on that day in order to hold the drawer and indorsers, unless changed by statute, as in some states. Days of grace are, for all practical purposes, a part of the time the bill has to run, and interest is charged on them. According to the usage and custom of merchants to fix the liability of the indorser of negotiable paper, it should be protested on the last day of grace. By the Negotiable Instruments Law, all days of grace have been abolished in a majority of the states. For full text of Negotiable Instruments Law, see pages 1434 to 1437.

## DEAD LETTERS.

Letters transmitted through the mails according to direction, and remain-

ing for a specified time uncalled for by the persons addressed, are called dead letters.

## DEBT.

A sum of money due by certain and express agreement. All that is due a man under any form of obligation or promise. Any claim for money.

## DEED.

A written instrument under seal, containing a contract or agreement which has been delivered by the party to be bound and accepted by the obligee or covenantee. A writing containing a contract sealed and delivered to the party thereto.

A writing under seal by which lands, tenants, or hereditaments are conveyed for an estate not less than a freehold. A writing or instrument, written on paper or parchment, sealed and delivered to prove and testify the agreement of the parties whose deed it is to the things contained in the deed.

Any instrument in writing under seal, whether it relates to the conveyance of real estate, or to any other matter,—as, for instance, a bond, single bill, agreement, or contract of any kind,—is as much a deed, as is a conveyance of real estate, and, after delivery and acceptance, is obligatory. The term is, however, often used in the latter sense above given, and perhaps oftener than in its more general signification.

Requisites of.—Deeds must be upon paper or parchment; must be completely written before delivery; must be between competent parties; must have been made without restraint; must contain the names of the grantor and grantee, but a variance in the names set forth in the deed will not invalidate it; must relate to suitable property; must be sealed (*i. e.*, in order to constitute it a deed, though an unsealed instrument may operate as a conveyance of land); and should for safety, be signed, even where statutes do not require it.

A deed must be delivered and accepted. It may be delivered by doing something and saying nothing, or by saying something and doing nothing, or it may be both. But if the deed is delivered without the consent of the grantor, it is of no effect. Deeds conveying real estate must in most states of the United States be acknowledged and recorded.

The requisite number of witnesses is also prescribed by statute in most of the states.

Recitals in deeds of payment of the consideration expressed therein are not proof of such payments as against persons not parties thereto; nor is a consideration always necessary to the validity of a deed of land. An alteration in the description of property in a deed can not be made without re-execution, re-acknowledgment, and re-delivery, after the deed has been delivered and recorded.





## DEFICIT.

The deficiency which is discovered in the accounts of an accountant, or in the money which he has received.

## DEFRAUD.

To defraud is to withhold from another that which is justly due to him, or to deprive him of a right by deception or artifice.

## DELIVERY IN CONTRACTS.

The transfer of the possession of a thing from one person to another.

Originally, delivery was a clear and unequivocal act of giving possession, accomplished by placing the subject to be transferred in the hands of the transferee, or his avowed agent, or in their respective warehouses, vessels, carts and the like; but in modern times it is frequently symbolical, as by delivery of a key to a room containing goods. By marking timber on a wharf, or goods in a warehouse, or by separating and weighing or measuring them, or otherwise constructive, as by the delivery of a part for the whole.

Where goods are ordered by a foreign merchant, the title passes, on a delivery to a carrier for shipment, subject only to the right of stoppage in transit; but such is not a delivery to the vendee where he dies before they reach their destination. Where the vendor takes the bill of lading delivered to the order of himself, or of his agent, it prevents the property from passing to the intended vendee until delivery.

Delivery is not necessary at common law to complete a sale of personal property as between the vendor and vendee; as a sale passes title as soon as the bargain is struck without any delivery or payment. But as against third parties possession retained by the vendor raises a presumption of fraud, conclusive according to some authorities, others holding it merely strong evidence of fraud to be left to the jury. But delivery *is* necessary, in general, where the property in goods is to be transferred in pursuance of a previous contract, and also in case of a gift made in expectation of death. To give validity to a gift, there must be such a delivery of the subject thereof as works an immediate change in the dominion of the property. The rules requiring actual full delivery are subject to modification in the case of bulky articles.

The word delivery is used in different senses, which should be borne in mind in considering the cases. Sometimes it denotes transfer of the property in the chattel and sometimes transfer of the possession of the chattel. When used in the latter sense it may refer either to the information of the contract, or to the performance of it. When it refers to the delivery of possession in the performance of the contract the buyer is sometimes spoken of as being in possession although he has only the right of possession, while the actual custody remains with the vendor.

A condition requiring delivery may be annexed as a part of any contract of transfer.

## DEMAND.

A claim; a legal obligation.

A release of all demands is, in general, a release of all covenants, real or personal conditions, whether broken or not, annuities, recognizances, obligations, contracts, and the like; but does not discharge rent before it is due, if it be a rent incident to the reversion; for the rent was not only not due, but the consideration—the future enjoyment of the lands—for which the rent was to be given was not executed.

## DEPOSIT.

A naked bailment of goods to be kept for the depositor without reward, and to be returned when he shall require it. A bailment of goods to be kept by the bailee without reward, and delivered according to the object or purpose of the original trust. A contract by which one of the contracting parties gives a thing to another to keep, who is to do so gratituously and obliges himself to return it when he shall be requested.

An irregular deposit arises where one deposits money with another for safekeeping, in cases where the latter is to return, not the specific money deposited, but an equal sum.

A depository is bound to take only ordinary care of the deposit, which will of course vary with the character of the goods to be kept, and other circumstances. While gross negligence on the part of a gratituous bailee is not fraud, it is in effect the same thing. He has, in general, no right to use the thing deposited; unless in cases where permission has been given or may from the nature of the case be implied. He is bound to return the deposit itself and in the same state in which he received it; if it is lost, or injured, or spoiled, by his fraud or gross negligence, he is responsible to the extent of the loss or injury. He is also bound to restore, not only the thing deposited, but any increase of profits which may have accrued from it; if an animal deposited bear young, the latter are to be delivered to the owner.

In the case of irregular deposits, as those with a banker, the relation of the banker to his customer is that of debtor and creditor, and does not partake at all of a fiduciary character. It ceases altogether to be the money of the depositor, and becomes the money of the banker. It is his to do what he pleases with it, and there is no trust created. The legal remedy is a suit at law for debt; the balance can not be reached by a bill in equity, except in some cases of insolvency, when a fund can be followed. The banker is not liable for interest unless expressly contracted for, and the deposit is subject to the statute of limitations.





## DISCOUNT IN CONTRACTS.

Interest reserved from the amount loaned at the time of making a loan. An allowance sometimes made for prompt payment. As a verb it is used to denote the act of giving money for a bill of exchange or promissory note, deducting the interest. In an ordinary commercial document, discount means rebate of interest and not "true" or mathematical discount.

A discount by a bank means a deduction or drawback made upon its advances or loans of money upon negotiable paper or other evidences of debt, payable at a future day, which are transferred to the bank. It is the difference between the price and the amount of debt, the evidence of which is transferred.

The taking of legal interest in advance is not usurious; but it is only allowed for the benefit of trade and where the bill or note discounted is meant for circulation and is for a short term.

There is a difference between buying a bill and discounting it. The former word is used when the seller does not indorse the bill and is not accountable for its payment. The true discount for a given sum, for a given time, is such a sum as will in that time amount to the interest of the sum to be discounted.

## DISHONOR.

A term applied to the non-fulfillment of commercial engagements. To dishonor a bill of exchange, or a promissory note, is to refuse or neglect to pay it at maturity. The holder is bound to give notice to the parties to such instruments of its dishonor; and his laches will discharge the indorsers.

## DIVIDEND.

A portion of the principal or profits divided among the several owners of a thing. The term is usually applied to the division of the profits arising out of the business and surplus funds of a corporation which has been actually set apart by a valid resolution of the board of directors, or by the shareholders at a corporate meeting, for distribution among the shareholders according to their respective interests, in such a sense as to become segregated from the property of the corporation, and to become the property of the shareholders distributively.

In the commonest use of the term, dividends are provided for by a sum which a corporation sets apart from its profits to be divided among its members, and which, for the purpose of declaring a dividend, consists of the excess of its cash and other property on hand over its liabilities.

Where dividends are required to be declared out of the profits merely of a railroad company, the rule for ascertaining what the profits are, is to exclude from consideration all debts other than what are commonly understood by the term funded debts, but to treat as deductions debts incurred and

due for engines, rails and the like, which should and would have been paid at the time if the funds had been in hand, and are necessary deductions from the property.

Dividends cannot usually be paid out of the capital, but only from the profits. The former is a trust fund for the stockholders, which each of them is entitled to have preserved intact; but this principal does not apply when the capital from its nature is liable to waste and depreciation. And the term dividend is applied to the distribution among the creditors of the effects of an insolvent estate or of a bankrupt.

It is within the implied scope of the authority of the directors of a corporation to declare dividends, and unless controlled by the action of the corporation itself they have authority, at their sole discretion, to declare dividends and to fix the time and place of payment within the limits of reason and good faith with the stockholders. And, generally, courts will not interfere in behalf of a common stockholder to compel the declaration of a dividend, except in case of fraud or abuse of discretion; nor will equity restrain the declaration of a dividend where the propriety of declaring one is fairly within the discretion of the directors.

Dividends must be so declared as to give each stockholder his proportionate share of the profits, and if one person is excepted he may sue for his dividends, for the reason that such exception is void.

A stockholder cannot recover the profits made by a corporation until a dividend has been declared, but after a dividend has been declared and demand made therefor by a stockholder, he may sue in assumpsit for the amount due him, and stockholders have been allowed to follow the amount of his dividend into the hands of the receiver of the company.

## DOCUMENTS.

The deeds, agreements, title-papers, letters, receipts and other written instruments used to prove a fact.

When a document is lost, secondary evidence may be given of its contents, after laying a proper foundation therefor, by proving its former existence, and its due execution, and satisfactorily accounting for the failure to produce it. The burden of proving all of these facts rests upon the party who seeks to induce such secondary evidence.

## DRAFT.

An order for the payment of money, drawn by one person upon another. It is frequently used in corporations where one agent draws on another; in such case it may be treated either as an accepted bill or a promissory note. They are frequently used for mere convenience in keeping accounts and providing concurrent vouchers, and it is not necessary to present such a draft to the drawee or to give notice of the non-payment before suing the corporation.





While a draft by directors of an insurance company on its cashier was held to contain all that is essential to constitute a promissory note, yet drafts, which are frequently used between municipal officers, are said not usually to be negotiable instruments. But it has been held that municipal warrants or orders for the payment of debts, if authorized and drawn in negotiable language, may be sued on by the transferee. They must, however, be presented for payment before suit.

## DRAWBACK.

An allowance made by the government to merchants on the re-exportation of certain imported goods liable to duties, which in some cases consists of the whole, in others a part, of the duties which had been paid upon the importation.

## DRAWEE.

A person to whom a bill of exchange is addressed, and who is requested to pay the amount of money therein mentioned.

## DUE.

What ought to be paid; what may be demanded. It differs from owing in this, that sometimes what is owing is not due. A note payable a certain time after date is owing immediately after it is delivered to the payee, but it is not due until such certain time has elapsed.

At times the word "due" signifies a simple indebtedness without reference to the time of payment, while at others it shows that the day of payment has passed.

## DUE-BILL.

An acknowledgment of debt in writing. It is unlike a promissory note in many respects; it is not payable to order, nor is it assignable by mere endorsement, and the maker of it is not estopped by it as to anyone who may purchase the supposed debt, but in an action on it he may show, under a plea of want of consideration, that the indebtedness for which it had been given had been paid before the bill was made.

## DUPLICATE.

The double of anything. A document which is essentially the same as some other instrument.

A duplicate instrument has but one effect. Each duplicate is complete evidence of the intention of the parties. When a duplicate is destroyed, as in the case of a will, it is presumed that both are intended to be destroyed, but this presumption presents greater or less force, owning to circumstances. When

only one of the duplicates is in the possession of the testator, the destruction of that is a strong presumption of an intent to revoke both, but if he possessed both, and destroys but one, it is weaker; when he alters one and afterwards destroys it, retaining the other entire, it has been held that the intention was to revoke both; but that seems to be doubted.

## EARNEST.

The payment of a sum of money or the delivery of a thing or token upon the making of a contract for the sale of goods, to bind the bargain, the delivery and acceptance of which makes the final and conclusive assent of both parties to the contract. It has also been defined to be the payment of a part of the price of goods sold, or the delivery of a part of such goods for the purpose of binding the contract.

To constitute earnest to bind the bargain, something must be paid or given. Money left in the hands of a third person as a forfeiture is not sufficient, much less the deposit of a check.

In part payment something of value must pass from the buyer to the seller. A mere agreement that the price shall go in settlement of an existing account is not sufficient without more; nor is an agreement to sell one article and take another in part payment; there must be a delivery of something of value.

With respect to the time when part payment must be made, it is in some States required to be made at the time of making the contract. It was so held in New York; the same day has been held to be sufficient, and so was a payment asked for and made on the day following, the contract being held to be then made for the first time.

## EARNINGS.

This word has been held to include a larger class of credits than would be included in the term wages. It also means the gains of the debtor derived from his services or labor without the aid of capital.

Net Earnings, generally speaking, are the excess of the gross earnings over the expenditures defrayed in producing them, aside from and exclusive of, the expenditures of capital laid out in constructing and equipping the works themselves.

## EMBEZZLEMENT.

The fraudulent appropriation to one's own use of the money or goods entrusted to one's care by another.

The fraudulent appropriation of property by a person to whom it has been intrusted or to whose hands it has lawfully come. It is distinguished from larceny in the fact that the original taking of the property was lawful





or with the consent of the owner, while in larceny the felonious intent must have existed at the time of the taking.

## EMPLOYED.

The act of doing a thing, and the being under contract or orders to do it.

## EMPLOYEE.

A person employed. But used ordinarily to signify a person in some official employment. Though it is not confined to any official employment, it is understood to mean some permanent employment or position. It has been held to mean anyone who renders service to another, and has been extended so far as to embrace an attorney or counsel.

## ENDORSE.

See Indorse.

## ENGAGEMENT.

A contract. The obligation arising from a quasi contract. The terms obligation and engagement are said to be synonymous, but some codes seem specially to apply the term engagement to those obligations which the law imposes on a man without the intervention of any contract, either on the part of the obligor or the obligee. An engagement to do or not to do something amounts to a promise.

## ENGROSS.

To copy the rude draft of an instrument in a fair, large hand. To write out in a fair, large hand on parchment.

## ENHANCED.

Any increase in value, however caused or arising.

## ENTRY.

The act of setting down the particulars of a sale, or other transaction, in a merchant's or tradesman's account books; such entries are in general prima facie evidence of the sale and delivery, and of work done, but unless the entry be the original one, it is not evidence.

## ERASURE.

The obliteration of a writing. The effect of an erasure is not per se

to destroy the writing in which it occurs, but is a question for the jury, and will render the writing void or not, under the same circumstances as an interlineation.

## ESTOPPEL.

The preclusion of a person from asserting a fact by previous conduct inconsistent therewith, on his own part or on the part of those under whom he claims, or by an adjudication upon his rights which he cannot be allowed to call in question.

## EVIDENCE.

That which tends to prove or disprove any matter in question, or to influence the belief respecting it.

## EXCHANGE.

A negotiation by which one person transfers to another funds which he has in a certain place, either at a price agreed upon or which is fixed by commercial usage.

## EXTINGUISHMENT OF A DEBT.

Destruction of the debt. This may be done by the recovery of a judgment; by the acceptance of a higher security, and, when the debt is evidenced by a note, by a surrender of the note.

## FACE.

The words of a written paper in their apparent or obvious meaning, as the face of a bill, note, check, etc.

The face of a judgment is the sum for which it was rendered, exclusive of interest.

## FACTOR.

An agent for the sale of goods in his possession or consigned to him. An agent employed to sell goods consigned to him by or for his principal, for a compensation, a commission merchant. A factor may buy and sell for his principal in his own name, as well as in the name of his principal, and in this respect he differs from a broker who should buy and sell in the name of his principal only. A factor is intrusted with the possession, management, control and disposal of the goods, and has a special property in and a lien on them, while a broker has no such possession, management, control or disposal of the goods nor property in, nor lien on them. The term factor is used but little in the United States, the business is done by commission men, except in the southern states.





## FALSE PRETENCES.

False representations and statements made with a fraudulent design to obtain money, goods, wares and merchandise, with intent to cheat. A representation of some fact or circumstance calculated to mislead, which is not true. There must be an intent to cheat or defraud some person. The intent is all that is requisite; it is not necessary that the party defrauded should sustain any loss.

It is not necessary that all the pretences should be false, if one of them, per se is sufficient to constitute the offence. And although other circumstances may have induced the credit, or the delivery of the property, yet it will be sufficient if the false pretences had such an influence that without them the credit would not have been given or the property delivered. The pretence must relate to past events and must have been used before the contract was completed.

## FALSIFICATION.

The showing an item in the debit of an account to be either wholly false or in part erroneous is held, in Chancery practice, to be a falsification.

## FICTITIOUS PAYEE.

When a negotiable paper or other like contract is drawn in favor of a fictitious person, and has been indorsed in such name, it is deemed payable to bearer as against all parties who are privy to the transaction; and a holder in good faith may recover on it against them.

When a note is made payable to the name of some person not having any interest, and not intended to become a party to the transaction, whether a person of such a name is or is not known to exist, the payee may be deemed to be fictitious.

The maker of a note in favor of a fictitious person, by negotiating it transfers title to it without indorsement, and it is presumed that the note came into the possession of the holders with the names of all the endorsers on it, and prima facie he is treated as a holder for value, provided that the acceptor or indorser be ignorant of the fact that the payee was a fictitious person. In the hands of a bona fide holder such a note or bill is good against the maker.

## FINANCES.

The word is generally used in the plural, and denotes money resources generally. The state of the finances of an individual or corporation, is his or its

condition from a monetary point of view; the cash he has on hand, and that which he expects to receive, as compared with the engagements he has made to pay. The income or means of an individual or corporation.

## FIXTURES.

Personal property so attached to real estate as to become part of it, depending on the intentions of the parties.

## FLOATING CAPITAL.

Is the capital retained for the purpose of meeting current expenses. It includes raw materials destined for fabrication, such as wool and flax products in the warehouse of a merchant or manufacturer; and such as cloth, linen, stores, money for wages, etc.

## FLOATING DEBT.

Is that mass of lawful and valid claims against a corporation, for the payment of which there is no money in the corporate treasury specifically designed, nor any system of taxation or other means providing money to pay, particularly provided.

## FOREIGN.

That which belongs to another country; that which is strange. The several states of the American Union are foreign to each other with respect to their municipal laws. But the reciprocal relations between the national government and the several states composing the United States are not considered as foreign, but domestic.

## FOREIGN BILL OF EXCHANGE.

A bill that is drawn in one country or state and made payable in another; and so if the parties to it reside in the same state, but the bill is drawn in one state and made payable in another, such is a foreign bill.

## FOREIGN CREDITOR.

One who is resident in a state or country foreign to that of the domicile of the debtor or the situs of his property.

## FOREIGN TRADE.

The exportation and importation of commodities to or from foreign countries, as distinguished in the United States from interstate or coastwise trade.





## FORGERY.

The falsely making or materially altering, with intent to defraud, any writing which, if genuine, might apparently be of legal efficacy or the foundation of a legal liability.

The fraudulent making or alteration of a writing to the prejudice of another's rights.

The essence of forgery consists in making an instrument appear to be that which it is not.

The making of a whole written instrument in the name of another with a fraudulent intent is a sufficient making to constitute a forgery, but otherwise where one executes a promissory note as agent for a principal from whom he has no authority.

Making an instrument in a fictitious name, or in the name of a non-existing person, is as much a forgery as making it in the name of an existing person, and although a man makes the instrument in his own name, if he represent it as the instrument of another of the same name, when in fact there is no such person, it will be a forgery in the name of a non-existing person.

The offence of forgery may be complete without a publication of the forged instrument.

The intent must be to defraud another, but it is not requisite that any one shall have been injured; it is sufficient that the instrument forged might have proved prejudicial. The act of offering for sale and selling a forged instrument is a sufficient representation as to its genuineness.

## FREIGHT.

In Maritime Law, is the sum agreed upon for the hire of a ship, entirely or in part, for the carriage of goods from one port to another. The price to be paid for the actual transportation of goods by sea from one place to another.

The general rule is that the delivery of the goods at the place of destination, in fulfillment of the agreement of the charter party or bill of lading, is required, to entitle the master or owner of the vessel to freight, but there are exceptions to this rule.

## FUTURE ACQUIRED PROPERTY.

A mortgage made to cover "after acquired property" is valid, and may include the future earnings of a railroad company, its rolling stock, and the proceeds to be received from the sale of surplus lands. Future calls of assessments on stock cannot be mortgaged, but it has been held that calls already made can be.

## FUTURES.

This term has grown out of those purely speculative transactions in which there is a nominal contract of sale for future delivery, but where in fact it is never intended or executed. The nominal seller does not have or expect to have the stock or merchandise he purports to sell, nor does the nominal buyer expect to receive it or pay the price. Instead of that a percentage or "margin" is paid, which is increased or diminished as the market rate go up or down and are accounted for to the buyer. This is simple speculation and gambling; mere wagering on prices within a given time.

## GAMING.

A contract by which two or more parties agree to play by certain rules at cards, dice, or other contrivance, and that one shall be the loser and the other the winner. When considered in itself, and without regard to the end proposed by the players, there is nothing in it contrary to natural equity, and the contract will be considered as a reciprocal gift, which the parties make of the thing played for, under certain conditions. There are some games which depend altogether upon skill, others upon chance, and still others are of a mixed nature. Billiards is an example of the first, lottery of the second, and backgammon of the last.

The decisions as to what constitutes gaming are not altogether uniform. Under statutes making it a penal offense, it is defined as a staking on chance where chance is the controlling factor, as betting on a horse race. Betting on a baseball game is within the criminal offense of gaming, and it has been held that a billiard table is a gaming table, while the reverse is held in some states.

Statutes have been passed in perhaps all of the States forbidding gaming for money at certain games, and prohibiting the recovery of money lost at such games, and a court of equity will not lend its aid in a gambling transaction either to the winner to compel payment of his unpaid accounts, or to the loser who has paid his losses to enable him to recover them back, whether the loser pays his losses in cash or in negotiable securities.

Under the statutes, bills and notes given for the amount of a gaming debt are inoperative and void. The law begins by declaring all wagers and bets unlawful and concludes by annulling every contract growing out of such a transaction. But in the hands of a bona fide purchaser, or indorsee, without notice, who takes it for value, such a bill or note is valid as against the payee, on his indorsement, as on a new contract, and he is liable thereon. He is estopped from asserting its invalidity.

As between the immediate parties to such bills and notes the law refuses to enforce it in favor of one against the other. The courts are not at liberty to give effect to an instrument which is declared affirmatively to be void. Notes and bills given for money to game with come under the prohibition and are void.





## GIFTS.

A voluntary conveyance or transfer of property; that is, one not founded on the consideration of money or blood.

*Gifts inter vivos* are gifts made from one or more persons, without any prospect of immediate death, to one or more others. *Gifts causa mortis* are gifts made in prospect of death.

*Gifts inter vivos* have no reference to the future, but go into immediate and absolute effect. Delivery is essential. A mere intention or naked promise to give without some act to pass the property, is not a gift. But it is sufficient to complete the gift if the conduct of the parties show that the ownership of the chattels has been changed.

When a gift *inter vivos* is perfect, it is then irrevocable, unless it is prejudicial to the creditors, or the donor was under a legal incapacity, or was circumvented by fraud.

A gift *causa mortis* is revocable during the donor's life.

## GOLD.

Parties may contract for the payment of an obligation in gold, or any other money or commodity, and it must then be paid in the medium contracted for. Contracts expressly stipulating for payment in gold and silver dollars can only be satisfied by the payment of coined dollars. Such a contract is nothing else than an agreement to deliver a certain weight of standard gold to be ascertained by a count of coins, each of which is certified to contain a definite proportion of that weight.

Where a note was made payable *in specie*, it was held that the designated number of dollars must be paid in so many gold or silver dollars of the coinage of the United States, and a tender of greenbacks or United States legal tender notes was not sufficient.

A contract to pay a certain number of dollars in gold; a draft for a certain number of gold dollars, or a note payable in gold or silver, are all enforceable according to their terms. But in the absence of a stipulation in the contract, a right to demand payment in coin will not be implied, although it appear that payment in coin was the only method of payment recognized by law when the contract was entered into and that the parties no doubt expected that payment would be made in coin; as where the consideration for a note was a loan in gold and silver and there was no stipulation to pay in such money.

## GOOD FAITH.

An honest intention to abstain from taking any unconscientious advantage of another.

Good faith is presumed in favor of the holder of negotiable paper, and outweighs a presumption of payment, and such holder takes the paper free

from any infirmity in its origin except such as makes it void for illegality of consideration or want of capacity in the maker.

One who has purchased for value and without notice, or his transferee, is termed a holder in good faith.

## GOODS.

In contracts the word "goods" is not so wide as chattels, for it applies to inanimate objects, and does not include animals or chattels real, as a lease for years, which chattels does include. "Goods" will not include fixtures, or a subscription for stock, and it has been held not to include teams and wagons, notes and accounts due.

## GOODS, WARES, AND MERCHANDISE.

Fixtures do not come within this term as used in the statute of frauds, while growing crops of potatoes, corn, turnips and other annual crops do. A contract for the sale of apples, peaches and blackberries, which might be raised during certain years, are chattels personal and not within the statute. Promissory notes and shares in an incorporated company, and, in some cases, money and bank notes have been held within it.

## GUARANTEE.

(*n.*) He to whom a guaranty is made. Also, (*v. t.*) to make oneself responsible for the obligation of another, in which case he is termed a (*n.*) guarantor.

The guarantee is entitled to receive payment, in the first place, from the debtor, and secondly, from the guarantor. He must be careful not to give time, beyond that stipulated in the original agreement, to the debtor, without consent of the guarantor. The guarantee should, at the instance of the guarantor, bring an action against the principal for the recovery of the debt.

## GUARANTY.

Is a collateral undertaking to pay the debt of another in case he does not, and, also, an undertaking to answer for another's liability, and is collateral to such liability; a promise to answer for the debt, default, or miscarriage of another.

It is in the alternative and is distinguished from suretyship in being a secondary, while suretyship is a primary, obligation. Guaranty is an engagement to pay on the debtor's insolvency, or the principal's failure to perform if due diligence be used by the guarantee to obtain payment, or failure to perform is not due to acts of the guarantee; suretyship is an undertaking that a debt will be paid.

A written guaranty which fails to show on its face the person to whom





the guaranty is made is void, and where the terms of the contract fails to express a guaranty, parol evidence of one is inadmissible.

By the statute of frauds it is provided that "No action shall be brought whereby to charge the defendant upon any special promise to answer for the debt, default or miscarriage of another person, * * * unless the agreement upon which such action shall be brought, or some memorandum or note thereof, shall be in writing, signed by the party to be charged therewith, or by some person thereunto by him lawfully authorized."

"Any special promise" in the act does not apply to promises implied in law.

Where one who owes a debt to another promises to pay his debt to a creditor of such other party, the promise is not within the statute.

While it has been held that no suit can be maintained upon a guaranty except by the person with whom it is made, still it has also been held that a guaranty of a note may be sued on by any person who advances money on it, but that it is not negotiable unless made upon the note, the payment of which it guarantees. And in the case of promissory notes a distinction has been made between a guaranty of payment and a guaranty of collectability; the latter requiring that the holder shall diligently prosecute the principal debtor without avail, before recourse can be taken to the guaranty.

## HALF YEAR.

In the computation of time, a half year consists of one hundred and eighty-two days.

## HANDWRITING.

Anything written by a person. The manner in which a person writes, including the formation of the characters, the separation of the words, and other features distinguishing the written matter, as a mechanical result, from the writing of other persons.

## HOLDER.

The holder of a bill of exchange is the person who is legally in the possession of it, either by endorsement or delivery, or both, and entitled to receive payment either from the drawee or acceptor. One who indorses a promissory note for collection, as an agent, will be considered the holder for the purpose of transmitting notices. No one but the holder can maintain an action on a bill of exchange.

## HOLDER IN DUE COURSE.

See Indorsee in Due Course.

## HOLIDAY.

A day set apart for commemorating some important event in history; a day of exemption from labor.

In the United States legal holidays are merely the creation of statute law, and the lack of uniformity in the statutes of the several States makes the term itself very difficult of exact definition.

Legal holidays, as distinguished from the first day of the week, are those days which are set apart by statute, or by executive authority, for fasting and prayer, or those given over to religious observance and amusements, or for political, moral or social duties or anniversaries, or merely for popular recreation and amusement under such penalties and prohibitions alone as are expressed in positive legislation.

In most of the States it is the rule, and such is the general commercial usage, to allow only two days of grace, when the third would fall on a holiday, and to authorize demand of payment and protest on the day next preceding it.

The question as to when a note falling due on a legal holiday which happens to be Sunday, is legally payable, is to be determined as in the case of any other note falling due on a Sunday which is not a legal holiday. This is so by general usage without special provision by statute, though in some States there is such provisions.

The same custom of merchants which has indulged three days of grace after a note is due, if the last day of grace is not Sunday, allows but two where it is Sunday, to avoid giving four days of grace.

Where a note is drawn without grace and it falls due on Sunday, demand of payment and protest cannot be made until the day following, as it would be requiring payment before due to protest it on the day before; and where a note is so drawn without grace and it falls due on a holiday which is on Sunday, and the holiday is observed on Monday, payment may be demanded and protest made on Tuesday.

## INCOME.

The gain which proceeds from property, labor, or business. It is applied particularly to individuals. The income of the state or government is usually called revenue. The word is sometimes considered synonymous with profits, the gain as between receipts and payments.

## INDORSE.

To write on the back. Bills of exchange and promissory notes are indorsed by a party's writing his name on the back thereof. (See Indorsement.)

## INDORSEE.

The person or party to whom a bill of exchange is indorsed, or transferred by indorsement.





## INDORSEE IN DUE COURSE.

One who, in good faith, in the ordinary course of business, before its apparent maturity or presumptive dishonor, and without knowledge of its actual dishonor, acquires a negotiable instrument, duly indorsed to him, or indorsed generally, or payable to bearer. Also called Holder in Due Course.

## INDORSEMENT.

That which is *written* on the back of an instrument and has relation to it.

The writing of one's name on the back of a promissory note or other negotiable instrument.

A *blank* indorsement or indorsement in blank is the writing of the name of the indorser only on the instrument, commonly on the back, but if written on the face of the instrument it may answer the same purpose. The effect is to make the instrument thereafter payable to bearer, and to render the indorser liable in certain events.

A *conditional* indorsement is one made subject to some condition without the performance of which the instrument will not be or remain valid. An indorsement on a note, making it payable on a contingency does not affect its negotiability.

An *indorsement in full* is one in which mention is made of the indorsee. The indorsement is usually in the words, "Pay to John Doe, or order," followed by the signature of the indorser. The omission of the words "or order" is not material, for the indorsee takes it with all of its incidents, including its negotiable quality.

A *qualified indorsement* is one which restrains, or limits, or qualifies, or enlarges the liability of the indorser, in a manner different from what the law generally imports as his true liability, deducible from the nature of the instrument, as an indorsement without recourse. An indorsement without recourse, or at the indorsee's "own risk," will not expose the indorser to any liability, but such an indorsement warrants the genuineness of all prior signatures, that the indorser has title to the note, that the note is valid between the original parties, and is not illegal or without consideration, and that the parties were competent to contract. Although by such an indorsement the indorser relieves himself from liability as indorser, yet he does not thereby totally dissolve his connection with the instrument; there are certain things for which he may be liable, although he indorses "without recourse;" thus if the instrument be not genuine, as if the signatures of any of the prior parties be forged; or if the note be invalid for the want of or by reason of the illegality of the consideration; or if the indorser had no title.

The indorsement without recourse does not indicate that the party so indorsing is conscious of any defect in the instrument, nor is it sufficient to charge the indorsee with notice of a defense thereto, or to put him on the inquiry thereto.

A *restrictive indorsement* is one which restrains the negotiability of the

instrument to a particular person or for a particular purpose, as "Pay A. B. only."

The rule is well settled that one who transfers a bill or note by delivery is liable for the amount received therefor, if it proves to have been fictitious or forged either by the original counterfeiting of the signatures of any of the parties thereto, or subsequently altered in any material part.

The vendor warrants by implication that he is the lawful holder and has title to the bill or note, and a failure thereof is a fraud upon the transferee and he may return the note, and recover back the consideration therefor.

Where a bill or note made payable to a particular person is transferred without indorsement, the transferee takes the equitable title only, and to entitle him to maintain an action thereon he must allege and prove the assignment. And, in such case, the instrument will be subject to all the equities and defences that it would have been in the hands of the vendor at the time of the transfer, but is not subject to those subsequently arising.

A party taking notes or bills already due, or after maturity, takes them subject to every defense existing against them in the hands of the holder when they become due. It is therefore often important to know when an indorsement was made. An indorsement is presumed to be of the same date as the instrument, or at least to have been made before maturity.

When the indorsement is made before the note has become due, the indorsee and all subsequent holders are entitled to recover the face of the note against the maker, without any right on his part to offset claims which he may have against the payee; or, as it is frequently stated, the indorsee takes it free of all equities between the antecedent parties of which he had notice.

A bill or note cannot be indorsed for a part of the amount due the holder, for the reason that the law will not permit a cause of action to be cut up into several, and such an indorsement is utterly void as such, but when it has been paid in part it may be indorsed as to the residue.

Bills or notes do not lose their negotiability by dishonor for non-payment or non-acceptance. They may be transferred after as well as before they have been dishonored, and the taking of such an instrument subjects the transferee to those defenses only which might have been made to it in the hands of the transferer, and if he acquired the instrument before maturity for value and without notice of defenses his transferee is a bona fide holder.

Where there are several indorsers of a bill or note the legal effect of the successive indorsements is to make them liable to each other in the order of time in which they sign their names; this proceeds upon the theory that the paper is transferred from the one to the others by indorsement and thereby a several and not a joint liability is credited; they are not co-sureties, and hence contribution between them cannot be enforced. In such case the holder may bring action on the instrument after dishonor, against his immediate indorser, or against any of the prior indorsers, or the maker.

## INK.

Ink is a colored liquid employed in making lines, characters and figures





on surfaces capable of retaining the marks so made. Its usual color is black, though red, violet, blue, green, etc., are often used. The surface written on is now almost always paper composed of vegetable fibre. For a few legal documents parchment is still used. Before the invention of paper, parchment, leather, wood and papyrus were employed.

The derivation of the English word *ink*, is probably through the French *enque* and the Italian *inchiostro*, from the Latin *encaustum* and the Greek *enguaston*, which means burnt or corroded in. The German *tinte* and the Spanish *tinta* probably come from the Latin verb tingo, to touch, through its participle tinctus, whence also our word tincture. In several languages, as the Hindostanee, *kali*, the word signifying black, has become the name of the ink, and in a very few the name of the pen or writing implement is the word to designate ink, as the Ethiopian *kalamus*.

Ancient inks were paints, thick and heavy, far different from the thin fluid now used; writing was in broad strokes and pools made with a brush, stick or pen of reeds or rushes, and the page when filled was laid aside to dry. A brush and India ink are still used in China.

Modern inks are dyes, thin and flowing freely from a sharp-pointed pen. In most cases they bite into the paper and can only be removed by cutting away its fibre; whereas ancient inks, lying on the surface. were frequently washed, rubbed or scraped off and the parchment re-written.

Pliny says: "Ink is made from soot in many ways, as by burning rosin and pitch. For this purpose factories have been built which emit no smoke. The best ink is made from the smoke of torches. It is adulterated with the smoke of furnaces and bath-house chimneys, and this is used for much writing. Some employ the dried lees of wine, and it is said that if the lees come from good wine, the ink is improved. It is also made from charcoal pounded fine in a mortar. The cuttle-fish has a wonderful coloring property, but it has not yet been used. All inks are improved by the sunlight. Book-writer's ink is made with gum, weaver's ink is mixed with glue. Ink whose materials have been liquified by acid is very difficult of erasure."

Discorides, who lived about the same time as Pliny, 95 A. D., gives the following recipe: "The ink with which I write is made from the soot of torches collected. To three ounces of soot add one of gum. It is also made from the soot of resin, called painter's black. Of this soot take one mina, half pound of gum and of ox-glue and copperas each half an ounce."

In the fourth century was introduced the quill or feather pen. The first steel pen was made in the latter half of the eighteenth, and the first gold pen in the first half of the nineteenth century. Early in the twelfth century the Arabs introduced paper into Europe from China, where it had been made for nearly a thousand years. The first paper was made at a mill in Spain, and by 1150 it was known throughout Europe. The use of the quill pen and paper necessitated an ink differing from the thick, muddy *atramentum scriptorium* of the Romans.

The monks, who were the writers of the time, made many experiments with the juices of plants and berries and decoctions of animal, vegetable

and mineral substances. One result has been that many of the documents and chronicles from the twelfth century on have partially or entirely faded out, while those of earlier date are still black and legible. From out of all this experimenting the use of tannin, usually in the form of nut-galls, and iron in the form of copperas, became almost universal nearly a century ago. Inks of this class were vastly superior to the older ones. Being **thin,** they flowed freely, dried quickly and penetrated into the paper. They were very durable. Their faults were that they had a sediment, were pale on first use and the acid ate up the pens. They were frequently colored up with indigo, logwood, aniline, etc., but tannin and iron were their foundation, as they still are of the best writing fluids.

For the seventy-five years prior to 1860 the manufacture of ink was very nearly stationary as regards improvements. Since that time there has been great progress, not so much in the discovery of new raw materials as in the precise application of true chemical principles to the treatment and combination of well-known substances and in the exercise of more care, skill and elegance in preparing ink for the market.

## INSOLVENCY.

The condition of a person who is insolvent. Inability to pay one's debts.

## INSOLVENT.

One who is unable to pay his debts as they fall due in the usual course of trade or business; the condition of a person who is insolvent or unable to pay his debts.

Though one's assets in value exceed the amount of his liability, yet, if he is unable to pay his debts as they fall due, he is insolvent, but it has been held that mere inability to pay debts promptly as they mature is not conclusive evidence of insolvency, and that one who has sufficient property subject to legal process to satisfy all legal demands is not insolvent, and, also, that a person who suspended business because of difficulties arising out of the commencement of an action was not necessarily an insolvent. But one who was unable to pay commercial paper in the due course of business is said to be an insolvent. A corporation is insolvent when its assets are insufficient for the payment of its debts, and it has ceased to do business, or has taken, or is in the act of taking, a step which will practically incapacitate it from conducting the corporate enterprise with reasonable prospect of success, or its embarrassments are such that early suspension and failure must ensue.

## INTEREST.

The amount charged for the use of money, usually on a percentum basis.

The compensation which is paid by the borrower of money to the lender, for its use, and, generally, by a debtor to his creditors in recompense for his detention of the debt; the compensation allowed by law or fixed by the





parties to a contract for the use or forbearance or detention of money.

Legal interest is the rate of interest established by the law of the country, which will prevail in the absence of express stipulation. Some of the States have fixed by statute the maximum rate of interest which may be charged, as in Michigan the legal rate is five per cent., and it is further provided that "in all cases it shall be lawful for the parties to stipulate in writing for the payment of any rate of interest, not exceeding seven per cent. per annum." Where no such provision exists any rate of interest may be agreed upon by contract. But where such provision does exist, it is usury to contract for a rate exceeding such maximum. (See Usury.)

When not stipulated for by contract or authorized by statute, interest is allowed by the courts as damages for the detention of money or property; for goods sold or delivered, after the customary or stipulated term of credit has expired.

When the debtor expressly undertakes to pay interest, he or his personal representatives having assets are bound to pay it. But if the party has accepted the principal, it has been held that he cannot recover the interest in a separate action.

Where by the terms of a note or bond interest is to be paid periodically, and the principal is at a distant date, the interest may be recovered before the principal is due. "With interest" carries interest from the date of the instrument containing these words. Interest coupons bear interest from maturity of the coupons. Interest on a dividend declared by a receiver should be allowed from the time such dividend is declared.

A debt barred by the statute of limitations, and revived by an acknowledgment, bears interest for the whole time.

Interest upon interest is not allowed, except in special cases. In an action to recover the annual interest due on a promissory note, interest will be allowed on each year's interest, after due, until paid. A note which provides for a rate of interest agreed upon by the parties, but omits to provide for the rate of interest after maturity, has been held to draw the legal rate of interest after maturity; but a different view has been held in some States.

In computing interest on notes, bonds, etc., upon which partial payments have been made, every payment is to be first applied to payment of the interest; but the interest is never allowed to form a part of the principal so as to carry interest. When a partial payment exceeds the amount of interest due when it is made, it is correct to compute the interest to the time of the first payment, add it to the principal, subtract the payment, cast interest on the remainder to the time of the second payment, add it to the remainder, subtract the second payment, and in like manner from one payment to another, until full payment or the time of judgment.

When the money due is tendered to the person entitled to it, and he refuses to receive it, the interest ceases.

The legal rates of interest in the United States vary greatly in the different States and Territories, and we append a table of the interest laws compiled from the most recent data.

By the "legal rate" is meant that rate of interest which would be fixed by a court of law in case no rate had been determined by agreement or contract.

Alabama.—Eight per cent. Penalty for usury, loss of interest.

Arizona.—Legal rate six per cent. per annum. Any rate may be agreed upon in writing, and by agreement in writing it may be compounded.

Arkansas.—Six per cent. Parties may agree verbally or in writing for ten per cent. Legal rate when no agreement, six per cent. All over ten per cent. is void as to principal and interest. If contract, for interest, is in writing, it should read "until paid," as otherwise, when merged in judgment, it will not be included.

California.—Parties may agree in writing for the payment of any rate of interest whatever, compounding or otherwise, and it shall be allowed until entry of judgment. On judgments seven per cent. is allowed. Seven per cent. is allowed where no rate is fixed by the parties, or the agreement is not in writing. Interest cannot be collected on open accounts unless agreed upon.

Colorado.—The legal rate of interest on the forbearance or loan of any money, and on claims, judgments and accounts, in the absence of any express agreement between the parties, is eight per cent. per annum. The parties may stipulate in any bond, bill, promissory note or other instrument in writing, for the payment of a greater or higher rate of interest than eight per cent. per annum, and such stipulation may be enforced in any court of competent jurisdiction.

Connecticut.—Any per cent. by way of interest or discount may be reserved in writing. In the absence of a written contract, made in the State, six per cent. only is recoverable; on contracts made out of the State, the legal rate of the State where made governs.

Delaware.—Six per cent. No higher rate can be agreed on between parties. Penalty for usury, forfeiture of a sum equal to the amount loaned.

District of Columbia.—The rate of legal interest is six per cent., but by written contract may be higher—not exceeding ten. If any greater rate than ten per cent. be received upon agreement in writing, or any greater than six per cent. by verbal agreement, the whole interest will be forfeited.

Florida.—Eight per cent. On special contracts any rate may be charged up to ten per cent. Penalty for usury, forfeiture of interest.

Georgia.—Seven per cent. Eight per cent. is allowed on special contract in writing. Excess of interest forfeited on plea of usury. Open accounts bear interest as follows: "All accounts of merchants, tradesmen, and mechanics, which by custom become due at the end of the year, bear interest from that time upon the amount actually due when ascertained."

Idaho.—The legal rate of interest in Idaho is as follows: When there is no express contract in writing fixing a different rate of interest, interest is alloyed at the rate of seven cents on the hundred by the year, on: (1) money





due by express contract; (2) money after the same becomes due; (3) money lent; (4) money due on a judgment of any competent tribunal or court; (5) money received to the use of another and retained beyond a reasonable time without the owner's consent, express or implied; (6) money due on a settlement of mutual accounts from the date the balance is ascertained; (7) money due on open accounts after three months after date of last item. Parties may agree in writing to pay twelve per cent. per annum. Any judgment rendered on such contract would bear interest at the rate of seven per cent. per annum. The penalty for a greater rate than above specified is as follows: when a greater rate of interest than above specified has been contracted for, such contract works a forfeiture of ten cents on the hundred by the year on the amount of such contract to the school fund. The court must render judgment for said ten per cent. in favor of the State for the use of the school fund of the county, and the plaintiff is to have judgment for the principal sum less all payments of principal or interest theretofore made, and without interest or costs.

Illinois.—Five per cent. is allowed when no rate is specified. In all written contracts, parties may agree on any rate of interest not exceeding seven per cent. On usurious contracts the entire interest is forfeited. Open accounts do not draw interest if disputed, unless delay of judgment is shown to be unreasonable and vexatious.

Indiana.—The legal rate of interest is six per cent., but if a higher rate be contracted for in writing it can be recovered, not exceeding eight per cent. If more than eight per cent. is contracted for, but six per cent. can be recovered. Where interest not exceeding eight per cent. has been voluntarily paid it cannot be recovered. Interest on a closed account can be collected from the day the itemized bill is rendered and payment demanded. Judgments cannot bear more than six per cent. interest.

Indian Territory.—Legal rate is six per cent., but ten per cent. may be charged by contract. Usurious contracts are void and forfeit principal and interest, even in the hands of an innocent purchaser before maturity.

Iowa.—Six per cent. is the legal rate. Parties may agree in writing on any rate not exceeding eight per cent. If a rate of interest is contracted for greater than this, it works a forfeiture of ten per cent. on amount of contract to school fund, and the creditor can have judgment for the principal sum only without interest or costs.

Kansas.—Regular rate six per cent. Parties may agree in writing on any greater rate not exceeding ten per cent. If more than ten per cent. be contracted for, the party forfeits double the sum in excess of that per cent.

Kentucky.—The rate of interest is fixed at six per cent., and the contract for more is void. The lender may recover the amount actually loaned with lawful interest. The law does not allow interest on open accounts, unless specific agreement to pay the account at a definite time can be proved.

Louisiana.—Legal rate five per cent. per annum; conventional interest expressed in writing, may be as high as eight per cent. Debts bear legal rate of interest from maturity only, unless otherwise stipulated. Compounding

of interest is not lawful. The full face of a promissory note, or other written obligation to pay money is recoverable, although it may include a greater rate of interest or discount than eight per cent. per annum.

MAINE.—Six per cent. There is no limit of the rate of interest which can be fixed by contract.

MARYLAND.—Six per cent. per annum; no higher rate is allowed. To take advantage of usury, the debtor must tender the principal and legal interest. The contract is only invalid for the *excess* of interest charged or taken. Usurious interest once paid cannot be recovered after principal debt has been paid.

MASSACHUSETTS.—Six per cent. is the legal rate of interest when there is no agreement for a different rate; but any rate of interest may be received or contracted for between parties, provided, however, that no greater rate than six per cent. can be recovered in any suit unless the agreement to pay the same is in writing; and provided also that all loans for less than $1,000 may be discharged on payment of principal sum actually borrowed with interest at eighteen per cent. and not exceeding $5.00 for all expenses; but lender may have at least six months' interest at that rate if loan paid within that time. No bond of a corporation shall bear more than seven per cent.

MICHIGAN.—Legal interest is five per cent. Parties may agree in writing for any rate not exceeding seven per cent. If the contract sued on bears more than six per cent., then the judgment, when rendered, will bear the same rate as the contract or obligation sued on. The penalty for taking usurious interest is a forfeiture of the entire interest.

MINNESOTA.—The rate of interest, unless a different rate is contracted for in writing, is six per cent., and the highest rate that can be contracted for is ten per cent. A contract to pay interest not usurious upon interest overdue is valid. All contracts that be at the same rate of interest after they become due as before, and any provision in a contract, note or other instrument providing for an increase of the rate of interest upon maturity will work a forfeiture of the entire interest. Every person who for any loan or forbearance shall have paid or delivered any greater sum or value than the rate of interest allowed by the law may recover from the person who has received the same, or his personal representatives, the full amount of interest so paid. The action must be brought within two years. One-half of the amount recovered must be paid to the county treasurer for the use of the common schools. All bonds, bills, notes, assurances, conveyances, chattel mortgages and all other contracts and securities, and all deposits of goods, or anything whatever, whereupon or whereby there shall be reserved, secured or taken, any greater sum or value for the loan or forbearance of any money, goods or things in action than is allowed by law is void, except negotiable paper in the hands of a bona fide purchaser for value without notice of the usurious transaction.

MISSISSIPPI.—Six per cent. Parties may agree in writing on any rate not exceeding ten per cent. If usurious interest be stipulated for, the effect is to forfeit all the interest, and it may be recovered by the debtor or his





representative, if paid. Local building and loan associations dealing alone with their own members in this State are not subject to usury law.

MISSOURI.—The legal rate of interest is six per cent. Parties may agree in writing upon any rate not exceeding eight per cent. Open accounts do not draw interest without proof of an express promise to pay interest. Accounts that are due draw interest from the date on which demand of payment is made. Usurious interest paid may be applied in payment of the principal debt, and proof of the exaction of usurious rates of interest shall invalidate and render illegal any lien, mortgage, or pledge of personal property, made to secure such indebtedness.

MONTANA.—Parties may stipulate for any rate of interest. Where no contract is made as to interest, the legal rate, eight per cent. per annum, governs after debt is due. There is no usury law.

NEBRASKA.—Seven per cent. is the legal rate, or any rate agreed upon not exceeding ten per cent., on express contracts. If more is exacted, the contract remains good as to principal, but all the interest is forfeited.

NEVADA.—Where there is no express contract in writing, fixing a different rate of interest, interest shall be allowed at the rate of seven per cent. per annum, for all moneys after they become due upon any bond, bill, or promissory note, or other instrument in writing, on any judgment recovered before any court in this State, for money lent, money due on settlement of accounts, from the day on which the balance is ascertained, and for money received for the use of another. Parties may agree in writing for the payment of any rate of interest whatever upon money due, or to become due on any contract. Judgments rendered upon contracts shall conform thereto, and bear the interest agreed upon by the parties, which shall be specified in the judgment; provided only the amount of the original claim or demand shall draw interest after judgment. Interest cannot be made to compound even where it is so stipulated in written agreement (so decided by the Supreme Court and never overruled).

NEW HAMPSHIRE.—Interest limited to six per cent., unless smaller rate stipulated. Penalty for usury, forfeiture of three times the amount of illegal interest received to the party aggrieved who will sue therefor. If the interest on a note is paid annually, the holder is entitled to recover simple interest on each year's interest from the time it is due until it is paid.

NEW JERSEY.—Six per cent. All contracts for a higher rate are void. In actions brought to recover usurious debts, the creditor can only recover the actual amount loaned, without interest or costs of suit, and any amount paid by way of interest shall be deducted from the amount actually loaned.

NEW MEXICO.—Six per cent. is the legal rate of interest, but parties may agree in writing for any rate of interest not exceeding twelve per cent. Open accounts bear interest at six per cent. from six months after the date of last item in the account. Judgments bear the same interest as contract sued on, and in absence of any specified rate, six per cent.

NEW YORK.—Six per cent. is the legal rate. All bonds, notes, contracts, securities, etc. (except bottomry and respondentia bonds), whereby a greater

rate is reserved, or taken, or agreed for, are absolutely void. The lender upon an usurious rate can recover neither principal nor interest. But corporations cannot plead usury as a defense. Usury is also a misdemeanor punishable by fine and imprisonment. In case of loans payable on demand, for not less than $5,000, for the repayment of warehouse receipts, bills of lading, certificates of stock, bills of exchange, bonds, or other negotiable instruments are pledged as security, any rate of interest may be agreed upon in writing.

North Carolina.—Six per cent.; or if usurious interest has been paid, double the amount may be recovered by action brought within two years. The only penalty for illegal interest is the loss of the whole interest.

North Dakota.—Legal rate of interest seven per cent. per annum. Excess above twelve per cent. usury, and usury is forfeiture of entire interest. Judgments draw interest at seven per cent. per annum only, regardless of the rate specified in the contract upon which the judgment is recovered.

Ohio.—The legal rate is six per cent. Special contracts may be entered into, stipulating for the payment of interest at any rate not exceeding eight per cent.

Oklahoma Territory.—The legal rate is seven per cent. Twelve per cent. by special contract. (See Judgments.)

Oregon.—Six per cent. per annum is the legal rate; but parties may agree in writing for a rate as high as ten per cent. per annum.

Pennsylvania.—Six per cent. A contract for a higher rate is void as to the excess over six per cent., and such sum, if paid, may be recovered by suit brought within six months. A fair purchase of a bond or note may be made at any discount, without being usurious.

Rhode Island.—The legal rate of interest is six per cent. when no rate is agreed upon by the parties. Any rate fixed by the contracting parties is legal.

South Carolina.—No greater rate of interest than seven (7) per cent. per annum can be charged upon any contract arising in the State, except upon written contracts, wherein, by express agreement, a rate of interest not exceeding eight (8) per cent. may be charged. No person or corporation lending or advancing money or other commodity upon a greater rate of interest shall be allowed to recover in any court in this State any portion of the interest so unlawfully charged, but may only recover the principal so lent or advanced without any interest and without costs. Any person or corporation receiving a greater rate of interest than eight (8) per cent. shall not only forfeit the interest, but also double the sum received, to be collected by a separate action, or allowed as a counter claim to any action brought to recover the principal. A. A. 1898, Sec. 3, provides: That the borrower, and his heirs, devisees, legatees or personal representative, or any creditor or any person having a legal or equitable interest in the estate or assets of such borrower, may plead the benefit of the provisions of this act, as plaintiff or defendant, and the same shall be effectual at any suit at law, or in equity, and any person offending against the same shall be compelled to answer on oath, any complaint that may be exhibited against him for the discovery of any sum of money or things in action, so charged, agreed upon, reserved or taken, in violation





of the foregoing provisions, or either of them. Open accounts do not bear interest, except by written agreement, except on claims against corporations. Judgments bear interest at seven per cent.

South Dakota.—The legal rate of interest is seven per cent. per annum, but persons may contract in writing for interest up to the rate of twelve per cent. per annum. The penalty for taking interest above the rate allowed is the forfeiture of the entire interest contracted for. If interest above the rate allowed has been paid, the person who paid it can recover from the person receiving the same the amount of interest paid. The taking of a greater amount of interest than is allowed by law is a misdemeanor, and is punishable by fine or imprisonment, or both.

Tennessee.—Six per cent. is the legal rate of interest; any contract for a higher rate of interest is usurious. Usury appearing on the face of an instrument renders it void altogether; otherwise the debtor can avoid only the excess over legal interest.

Texas.—On written contracts ascertaining the sum payable, when no rate of interest is agreed upon, six per cent. from the time when the sum is payable; parties to written contracts may stipulate for any rate of interest not exceeding ten per cent. per annum on the amount of the contract; upon open accounts, when no specified rate of interest is agreed upon, interest is allowed at six per cent. from the first day of January next after the accounts are made; judgments bear six per cent. interest, except when the judgment is founded upon a contract which bears a specified rate of interest greater than six per cent., and not over ten per cent., in which case the judgment bears interest at the same rate as the contract. Written contracts which directly or indirectly stipulate for more than ten per cent, interest are void for the whole amount of the interest, but the principal may be recovered. If usurious interest is paid, the person paying the same may, by an action brought within two years, recover double the amount of the interest paid.

Utah.—Legal rate, eight per cent.; by contract, any rate that may be agreed on.

Vermont.—Six per cent. is the legal rate, and interest beyond that rate may be recovered back.

Virginia.—Legal rate at six per cent. Where no rate of interest is agreed upon the debt bears six per cent.

Washington.—Legal rate six per cent., and all contracts shall draw interest at legal rate after due, except otherwise provided for in writing in the contract. Any rate not exceeding twelve per cent. may be agreed upon in writing between the parties. If a greater rate than twelve per cent. be contracted for, the contract shall not therefore be void, but in any action on such contract, if proof be made that any greater rate has been directly or indirectly contracted for, reserved, or taken, plaintiff shall only recover the principal less double the amount of interest accruing thereon, and the defendant shall recover costs. Statute does not affect existing contracts, or municipal or other public bonds, the rate of interest upon which is provided by law.

West Virginia.—Six per cent. is the legal rate. The debtor can avoid

the excess over six per cent. if he desires, on contracts for more than the legal rate.

Wisconsin.—Six per cent. is the legal rate. Parties may agree in writing on any rate not exceeding ten per cent. Any usurious agreement whereby more than ten per cent. is agreed to be paid, forfeits the whole interest, but leaves the principal debt collectable. Compound interest may be contracted for by written contract.

Wyoming.—The legal rate of interest, where there is no agreement between the parties, is eight per cent. per annum. Parties may stipulate for the payment of a higher rate of interest, but not exceeding twelve per cent. Unsettled accounts draw interest after thirty days from date of last item. If proof in any action shows a greater rate of interest has been contracted for, only the principal can be recovered and without costs.

## INTERLINEATION.

Writing between two lines, made either before or after execution of the instrument. Those made before should be noted on the instrument previously to its execution; those made after are considered as "made either by the party in whose favor they are made or by strangers." When made by the party himself, whether the interlineation be material or immaterial, they render the deed or instrument void, unless made with the consent of the opposite party.

When the interlineation is made by a stranger in an instrument in the hands of the promisee, though without his knowledge, if it be immaterial it will not vitiate the instrument; but if it be material the instrument is, in general, avoided. Otherwise, if the instrument be in the hands of a stranger.

The insertion of the words "or order," without the consent of the maker, constitutes a material alteration which avoids the note.

Where interlineations in a deed are in the handwriting of the officer who attested it officially, the presumption is that they were made at or before the execution of the instrument. But if there is ground of suspicion, the law presumes nothing, but leaves the question of the time when, the person by whom, and the intent with which it was done, to the jury, upon proofs to be adduced by the party offering the instrument. In cases of negotiable instruments the holder is held to clearer proof than in cases of deeds.

## JOINT.

Shared by two or more. The term is used to express a common property interest enjoyed, or a common liability incurred by two or more persons. It implies that the interest and right of action in choses in action are united so that all of the owners must be joined in a suit to enforce the obligation jointly held; each person subject to liability on it is liable for the whole, yet they are treated in law as together constituting one legal entity and must





be sued together, or a release to one will operate in favor of all. One who pays a joint debt is entitled to contribution.

## JOINT AND SEVERAL.

A liability is said to be joint and several when the creditor may sue one or more of the parties to such liability separately, or all of them together, at his option, as on a bond when the obligors bind themselves "jointly and severally" to the obligee. In such a case the action must be jointly as to all or several as to any one for the whole amount, but it cannot be joint as to some and several as to the others.

## JUDGMENT.

The conclusion of law upon facts found, or admitted by the parties, or upon their default in the course of a suit.

## JUDGMENT NOTE.

A promissory note given in the usual form, and containing, in addition, a power of attorney to appear and confess judgment for the sum therein named. On this account it is not negotiable except in states where the Negotiable Instruments Law is in force. It usually contains a number of stipulations as to the time of confessing the judgment; against appeal and other remedies for setting aside the judgment; an attorney's commission for collection; waiver of exemption and other conditions.

## JURAT.

That part of an affidavit where the officer certifies that the same was "sworn to" before him, and is usually in the following form:

"Subscribed and sworn to before me this —— day of ——, A. D. ——."

Ordinarily the jurat must be authenticated by the signature of the officer before whom the affidavit is made, and this should be his official signature, as "Richard Roe, Notary Public, Bay County, Michigan."

## LAW MERCHANT.

The general body of commercial usages in matters relative to commerce. It is sometimes called the "Custom of Merchants." It consists of certain principles of equity and usages of trade which general convenience and a common sense of justice have established, to regulate the dealings of merchants and mariners in all the commercial countries of the civilized world.

## LAWFUL.

That which is permitted or sanctioned by, and which is not contrary to

law. Thus an oral contract to convey land is, under the statute of frauds, void, yet it cannot be properly said to be unlawful, because there is no violation of law in making or performing such an agreement; but it cannot be enforced at law, because it is not legal or lawful in form for want of that written evidence required.

## LAWFUL MONEY.

Money which is a legal tender in payment of debts, such as gold and silver coined at the mints.

## LEGAL ESTATE.

Is one the right to which may be enforced in a court of law, and is distinguished from an equitable estate, the right to which can be established only in a court of equity.

The party who has the legal estate has alone the right to seek a remedy for a wrong to his estate, in a court of law, though he may have no beneficial interest in it. When a party having an equitable interest in an estate has a claim, he must enforce his right in a court of equity.

## LEGAL TENDER.

That currency which has been made suitable by law for the purposes of a tender in the payment of debts.

In the United States the following descriptions of money are legal tender:

All the gold coins of the United States are a legal tender in all payments at their nominal value when not below the standard weight and limit of tolerance provided by law for the single piece, and when reduced in weight below such standard of tolerance, they are a legal tender at valuation in proportion to their actual weight. Treasury notes and standard silver dollars for all payments. Silver coins of a smaller denomination than one dollar, for all sums not exceeding ten dollars. The minor coins—five, three, two and one cent pieces—for all sums not exceeding twenty-five cents.

By acts of February 25, 1862, July 11, 1862, and March 3, 1863, Congress authorized the issue of notes of the United States, declaring them a legal tender for all debts, public and private, except duties on imports and interest on the public debt.

## LETTER OF CREDIT.

An open or sealed letter, from a merchant, or bank, or banker, in one place directed to another in another place or country, requiring him, if a person therein named or the bearer shall have occasion to buy commodities, or to want money to any particular or unlimited amount, either to procure the same or to pass his promise, bill, or other engagement for it, the writer of the letter





undertaking to provide him the money for the goods, or to repay him by exchange, or to give him such satisfaction as he shall require, either for himself or the bearer of the letter.

Such letters are either general or special. General letters are directed to the writer's correspondents generally, wherever the bearer of the letter may happen to go; special letters are directed to some particular person.

If a letter is addressed to a debtor of the one who gave it, and, upon presentation of the letter the addressee refuses to comply with its request, the bearer should at once procure the letter to be protested.

In the United States an action can be maintained by one who advances money on a general letter of credit, but in England it has been held that, as there was no privity of contract between the parties such an action could not be maintained.

A letter of credit is not negotiable.

## LIQUIDATED ACCOUNT.

Is one the amount of which is agreed upon, or is fixed by operation of law. When it is certain how much is due, it is said to be a liquidated debt.

## MERCHANDISE.

Is a term which includes all those things which merchants sell, at either wholesale or retail. It is usually applied to personal chattels only, and to those which are not required for food or immediate support, but such as remain after having been used, or which are used only by a slow consumption. "The fact that a thing is sometimes bought and sold does not make it merchandise. It is often used as the synonym of "goods," "wares" and "commodities."

## MERCHANTABLE.

This word in a contract means, generally, vendible in market.

## MIDDLEMAN.

One who has been employed as an agent by a principal, and who has employed a sub-agent under him by authority of the principal, either express or implied. He is not, in general, liable for the wrongful acts of the sub-agent, the principal being alone responsible.

Also a person who is employed by both the purchaser and seller of goods, or by the purchaser alone, to receive them into his possession, for the purpose of doing something in or about them; as where goods are sent to a packer for and by order of the vendee, the packer is to be considered a middleman. In this and similar cases the goods are considered in transitu, provided the owner does not use the packer's warehouse as his own and has an ulterior place of delivery in view.

## MONTH.

In mercantile contracts signifies a calendar and not a lunar month; a promissory note to pay in twelve months would, therefore, mean a promise to pay in one year, or twelve calendar months.

## NEGOTIABLE INSTRUMENTS.

Besides notes, bills, and checks, the following have been held to be negotiable instruments: State and municipal bonds; corporate bonds; coupon bonds of an individual; coupon bonds of a corporation, and the coupons to such bonds; government scrip; treasury notes; postoffice orders, and certificates of deposit. County warrants are negotiable, transferable or assignable, but not in the sense of the law merchant.

Any addition to the form of a note which destroys its essential quality as "a promise to pay, simple, certain, unconditional, not subject to any contingency," will destroy its negotiable character.

A note containing a tax clause is not negotiable.

Indorsements of payment on the back of a promissory note before delivery do not destroy negotiability.

## NEGOTIATE.

The power to so transfer a bill or note by endorsement and delivery to another or by delivery alone in case the bill or note is payable to bearer, so that the right of action thereon shall pass to the transferee, indorsee or holder.

## NEGOTIATION.

Is the act by which a bill of exchange or promissory note is put into circulation by being passed by one of the original parties to another person.

There are two modes of negotiation, *viz.*, by delivery and by indorsement; the former applies to instruments payable to bearer, the latter to those payable to order.

Until an accommodation note or bill has been negotiated, there is no contract which can be enforced on the note; the contract, either express or implied, that the party accommodated will indemnify the other is, till then, conditional.

The consideration for the transfer is prima facie presumed, and the transferor can, under certain conditions, give a good title, although he has none himself.

The transferee can further negotiate the instrument with the like privileges and incidents, and can sue all parties to the instrument in his own name.

## NOTICE OF DISHONOR.

A notice given to a drawer or indorser of a bill, or an indorser of a





negotiable note, by a subsequent party, that it had been dishonored either by non-acceptance in the case of a bill, or by non-payment in the case of a note or an accepted bill.

The notice must contain a description of the bill or note, sufficient to leave no doubt in the mind of the party to whom it is given, as a reasonable man, what note or bill was meant or intended; a clear statement of the dishonor and something more than a mere statement of the fact of non-acceptance or non-payment.

The notice may be oral, but is usually in writing, and it may be personally served or sent by mail, except where the party giving the notice lives in the same town with the parties to be served, when the notice must be served personally or left in the care of a suitable person representing the party to be notified.

It must be sent to the place where the party to be notified will most probably be promptly found, whether the place of business or place of residence.

When sent by mail, it should be to the postoffice to which the party usually resorts. If properly addressed and mailed it will charge the indorser whether he has received it or not.

Every person who, by and immediately upon the dishonor of an instrument, and only upon such dishonor, becomes liable to an action either on the paper or on the consideration for which the paper was given, is entitled to immediate notice. The holder need give notice only to the parties and to the indorser whom he intends to hold liable. The second indorser cannot defend on the ground that the first indorser was not so notified.

Notice may be given by any party to a note or bill not primarily liable thereon as regards third parties, and not discharged from liability thereon at the time the notice is given. Such notice may be by the holder; by his agent, and in the agent's name; by an indorsee for collection; a notary; the administrator or executor of a deceased person; or the holder of the paper as collateral security.

Mere knowledge on the part of the indorser of a note, learned from the maker, that it had been dishonored, is not a notice, since notice must come from a party who is entitled to look to the indorser for payment.

The notice must be forwarded as early as the day after the dishonor, by a mail which does not start at an unreasonably early hour.

In some extreme cases, notice of dishonor may be excused.

## ON DEMAND.

A promissory note payable on demand is a present debt and is payable without demand. It is payable the instant the note is signed and no demand is necessary before bringing an action.

## OPEN ACCOUNT.

A running or unsettled account; not completely settled, but subject to future adjustment.

## ORDER.

An informal bill of exchange or letter of request requiring the party to whom it is addressed to deliver property or money of the person making the order to someone therein described.

The request in a bill of exchange that the drawee accept or pay.

## OVERDRAW.

To draw bills or checks upon an individual, bank, or other corporation, for a greater amount of funds than the party who draws is entitled to.

Where the president of a bank, not acting in good faith, permitted overdrafts which he did not believe and had no reasonable grounds to believe would be repaid, and it appeared that he intended by the transaction to injure and defraud the bank, the act became a crime.

A bank may properly refuse to pay a check which will overdraw the depositor's account, though on the bank books his balance seems to be larger than the amount of the check, where a check of his, paid by the bank two days before, had not yet been charged to such depositor.

An overdraft on a bank is in the nature of a loan; it is considered a fraud on the part of the depositor.

Where a person has overdrawn his account without any intention to do so, and afterwards gives a check on the bank, the holder is required to present it, and on refusal of payment to give notice to the maker, in order to hold him bound for it; but where the maker has overdrawn the bank account knowingly, having no funds there between the time the check is given and its presentment, the notice is not required.

A cashier who knowingly permits an overdraft is guilty of a breach of trust, and liable to an action to make good the amount, even though the directors had been wont to countenance him in a custom of allowing good depositors to overdraw.

## OVERDUE.

A bill, note, bond, or other contract for the payment of money at a particular day, when not paid upon that pay, is overdue.

The indorsement of a note or bill that is overdue is equivalent to drawing a new bill or note payable at sight or on demand.

A note when passed or assigned after it is overdue, is subjected to all the equities between the original contracting parties.

## OWING.

Something unpaid, a debt, whether due or not.

## PAPER MONEY.

The engagements to pay money, which are issued by the governments and





banks, and which pass as money. Bank notes are generally considered as cash, and will answer all the purposes of currency; but paper money is not a legal tender if objected to.

## PAR.

Equal. It is used to denote a state of equality or equal value. Bills of exchange, stocks and the like are at par when they sell for their nominal value; above par, or below par, when they sell for more or less. Par value of stock equals its face value.

## PAR OF EXCHANGE.

The par of the currencies of any two countries means the equivalence of a certain amount of the currency of the one in the currency of the other, supposing the currency of both to be of the same weight and purity fixed by their respective mints. The exchange between the two countries is said to be at par when bills are negotiated on this footing.

## PAYMENT.

The fulfillment of a promise or the performance of an agreement, or the discharge in money of a sum due.

It is now the law that payment must be made in money, unless the obligation is, by the terms of the instrument creating it, to be discharged by other means.

Congress has determined by statute in what form the creditor may demand his payment or must receive it if offered in the "Legal Tender" acts. (See Legal Tender.)

Whatever the parties agree shall constitute payment the law will adjudge to be payment.

A debt contracted in a foreign country is payable in the currency of that country and, therefore, where the creditor sues in the United States he is entitled to recover such sum in the money of the United States as equals the debt in the foreign country where it was payable.

Giving a check is a conditional payment, but the debt is discharged only when the check is paid, unless it was agreed that the check should be received in satisfaction of the debt.

Payment in forged bills, or counterfeit coins, is generally a nullity, but the forged bills or counterfeit money must be returned within a reasonable time, to throw the loss upon the debtor. It has been held that payment to a bank in its own notes which are received and afterwards discovered to be forged, is a good payment, so a forged check received as cash and passed to the credit of the customer is good payment.

If a bill of exchange or promissory note be given to a creditor and accepted as payment, it is a good payment. But regularly such instruments given to a creditor shall not be a discharge of the debt till payment of the bill, unless so

accepted; and the agreement to receive the debtor's own promissory note in payment must be expressed.

A bill of exchange drawn on a third person, and accepted, discharges the debt as to the drawer, and in an action to recover the price of the goods, payment by a bill not dishonored has been held a good defense.

Payment must of the whole sum; and even where a receipt in full has been given for a payment of part of an ascertained sum, it has been held not to be an extinction of the debt. But where payment of part has been made it may be left to the jury to determine whether the facts in the case constitute a payment of the whole.

Payment of a part at a different time, or place, or in any manner more beneficial to the creditor than that prescribed by the contract, is a good payment of the whole if taken as such, and accepted knowingly.

Evidence that anything has been done and accepted as payment is evidence of payment, so a receipt is only prima facie evidence of payment, but a receipt acknowledging the payment of ten dollars and acquitting and releasing from all obligations would be a receipt for ten dollars only, and it may be shown that the particular sum stated in the receipt was not paid, and, also that no payment has been made.

Payment is to be made to the creditor, or his agent, representative or assign, duly authorized to receive same, and at the exact time and place agreed upon, unless both the parties agree to a change. If no place of payment is mentioned the debtor must seek out the payee.

## PLACE OF BUSINESS.

The place where a man usually transacts his affairs of business.

When a man keeps a store, shop, counting room, or office, independently and distinctly from all other persons, that is deemed his place of business; and when he usually transacts his business at the counting house, office, and the like, occupied and used by another, that will also be considered his place of business, if he has no independent place of his own. But when he has no particular right to use a place for such private purpose, as in an insurance office, an exchange room, a banking room, a postoffice, and the like, where persons generally resort, these will not be considered as the party's place of business, although he may occasionally or transiently transact business there.

It is a general rule that a notice of the non-acceptance or non-payment of a bill, or the non-payment of a note, may be sent either to the domicile or place of business of the person to be affected by such notice; and the fact that one is in one town and the other in another town will make no difference, and the holder has his election to send to either. A notice to partners may be left at the place of business of the firm or of any one of the partners.

## PLEDGE.

A bailment of personal property as security for some debt or engagement.





The essential feature of a pledge is the transfer of possession as distinguished from a mortgage, the essential feature of which is the transfer of the title.

Unless the pledgee take and retain possession there is no pledge, and if possession be given to a third person for the pledgee, such person must know of the trust and accept the obligation it imposes. But a constructive delivery is all that is required; that is, such delivery as the nature or situation of the goods will admit. A change of the location of bulky goods is not in all cases necessary.

In the case of commercial paper, stocks, bonds and securities, which together constitute by far the most important division of pledges, or collateral securities, and of choses in action, delivery of possession is essential, but to make the delivery effective assignment is necessary and assignment is transfer of title. As both title and possession are transferred, the distinction between mortgage and pledge ceases to be of much practical importance—the title to the collateral depends not on the principal obligation, but on the mode of transfer. But there is a distinction between the position of the pledgee in relation to the pledgor and in relation to third persons. His position cannot be described as simply that of a trustee, because he holds the collateral primarily for his own benefit, which affects his relation to the pledge. So far as the pledgor is concerned, the question of the title of the pledgee is determined by the intention of the parties; as to third parties, he is practically owner. Thus a pledgee of stock may transfer it to his own name, though this is not necessary; and so far as the corporation is concerned, he is the owner of it. The legal title to a pledged note or chose in action is in him. He occupies the position of a bona fide holder for value, except when the pledge is for an existing debt; and though an assignee of a pledgee have notice of equities, he is not bound by them, if his assignor, the pledgee, had not such notice. His title to an accommodation note is good; notwithstanding equities between maker and payee; and he has the rights of a bona fide holder against the corporation, when the collateral is a certificate of stock which proves to have been fraudulently issued.

He is bound by anything which should amount to notice that the pledgor is without authority to pledge. But in dealing with one in possession of the securities and having the apparent right to dispose of them he will be protected, though the pledge be a fraud on the real owner. Of course, if the true owner has been deprived of possession by what amounts to embezzlement he can recover from the pledgee; and a pledge from one who has no authority either to sell or pledge, acquires no lien on the property as against the true owner. As holder of a note to which there is a valid defense against the payee, the pledgee is protected, but only to the extent of his interest, *i. e.*, to the amount which he has advanced.

Where possession is given to one of three pledgees, to hold for all three, the other two have a constructive possession, which is equally good, for the purpose of sharing, with an actual possession. Hence the mere manual possession of one pledgee will not give a right to discharge the whole debt of the

holder and a part only of that of his co-pledgee's. So, by the rule of constructive possession, if the holder should lose the pledge by his own negligence, he would be liable to his co-bailees out of actual possession, as well as to his bailor.

Substituted collateral is held on the same terms as that originally pledged, the surrender of that given up being sufficient consideration for the new deposit. Collateral deposited on a demand by the pledgee for additional "margin" would probably be held to be security given for an existing debt; this point does not appear to have been decided.

The renewal of the note or obligation of pledge does not affect the pledgee's rights in regard to the collaterals, it is a mere prolongation of the original contract.

Assignment by the pledgee is valid, in the absence of an agreement to the contrary, and carries with it all the collaterals pledged as security. The pledgor is not injured thereby, his right to redeem remaining unimpaired. The pledgor may sell or transfer his right to a third party, who may bring trover against the pledgee if the latter, after tender of the amount of the debt, refuse to deliver the pledge.

Possession is of the very essence of the pledge, and if possession be re-delivered by the pledgee, or with his consent, the pledge is extinguished. The exceptions to the rule are where the pledgor holds as the pledgee's agent, or where the pledge is re-delivered for a temporary purpose only, *e. g.*, for sale, or for collection or suit by the pledgor.

ORDINARY CARE.—The pledgee is bound to take ordinary care of the pledge, and is liable only for neglect of such care, the bailment being for the mutual benefit of both parties. Where he is to do work upon the pledge and incur expenditure, he must use reasonable diligence to secure the best net results, and account, showing that expenses for which allowance is claimed were reasonable and necessary; where he is to sell, paying himself out of the proceeds, he will be liable for carelessness in not properly keeping the pledge and for failing to sell until the market has fallen. If the pledge is loose and the pledgee has not failed to exercise ordinary care, he may still recover his debt; such losses often result from casualty, superior force, or intrinsic defect against which a man of ordinary prudence would not have effectually guarded himself. If a pledgor find it necessary to employ an agent, and exercises ordinary care in the selection, he will not be liable for the latter's neglect or misconduct. Loss or depreciation in value of the thing pledged, through negligence of the pledgee, does not operate to extinguish protanto the debt secured; but the pledgee is liable to the pledgor for the depreciation in value of the property pledged after a tender of the amount due and a refusal of the pledgee to deliver.

Loss by theft is prima facie evidence of a want of ordinary care, and the bailee must rebut the presumption; the facts in each case regulate the liability. Theft is only evidence, in short, and not absolute presumption, of negligence. Perhaps the only safe rule is that, where the pledgee pleads loss by theft as ground for not performing his duty, to excuse himself he must show that the theft could not have been prevented by ordinary care on his part.





The holder of collateral security, by accepting it, binds himself to use reasonable diligence in protecting it. Thus, by negligently releasing the indorser he becomes chargeable with the amount of a note; if he refuse to sue on a note the pledgor may file a bill to have the note collected and credited on the debt; by failure to use due diligence to collect accounts assigned he becomes responsible for the resulting losses; he must account for the real value of an insurance policy surrendered to the company for its cash value without notice to the pledgor. But as assignee of a policy of life insurance he is not obliged to pay premiums unless he has engaged to do so. Though authorized to sell collateral in the event of its depreciation, he is not bound to do so, nor liable if he fails; by taking notes secured on property he incurs no obligation to sue for the property, and if he does so, at the request of the pledgor, he incurs no obligation to take charge of it, and advance expenses upon it. When only required to collect a sufficient sum on a note to pay the debt, and then to turn it over to the pledgor, after collecting such sum, he is not liable for failure to take prompt steps to collect the residue at maturity; but he is responsible as bailee after, as well as before, the maturity of the debt.

PLEDGEE'S EXPENSES.—Whatever reasonable expense be necessarily incurred by the pledgee in keeping and caring for the property pledged, and protecting it against liens and taxes and assessments, and asserting title to it, or rendering it available, is a fair charge against the property pledged. For any unusual care he may get compensation from the pledgor, if it were not contemplated by the parties or is implied in the nature of the bailment.

REDEMPTION.—The pledgor may redeem at any time until his right to do so has been foreclosed by judicial decree, or by sale after notice.

## POSSESSION.

"The detention or enjoyment of a thing which a man holds or exercises by himself, or by another who keeps or exercises it in his name."

Possession expresses the closest relation that can exist between a corporeal thing and the person who possesses it, implying an actual physical contact, as by sitting or standing upon a thing.

Actual possession exists where the thing is in the immediate occupancy of the party.

Constructive possession is that which exists in contemplation of law, without actual personal occupation.

In order to complete a possession, two things are required; that there be an occupancy, apprehension, or taking; that the taking be with an intent to possess; hence persons who have no legal wills, as children and idiots, cannot possess or acquire possession. But an infant of sufficient understanding may lawfully acquire the possession of a thing.

Failure to take possession is sometimes considered a badge of fraud, in the transfer of personal property.

Possession of real property will be presumed to accompany ownership until the contrary is proved; and constructive possession consequent upon legal

ownership is sufficient as against mere trespassers. Long continued possession and use of real property creates a presumption of lawful origin; and this presumption need not rest upon belief that a conveyance was in point of fact executed.

## PRESENTMENT.

The production of a bill of exchange or promissory note to the party on whom the former is drawn, for his acceptance, or to the person bound to pay either, for payment.

For a full discussion see "Protest."

## PRIMA FACIE.

At first view or apearance of the business; as the holder of a bill of exchange, indorsed in blank, is prima facie its owner.

Prima facie evidence of fact is in law sufficient to establish the fact, unless rebutted. For example, when buildings are fired by sparks emitted from a locomotive engine passing along the road, it has been held to be prima facie evidence of negligence on the part of those who have the charge of it; and proof of the mailing of a letter is prima facie evidence of its receipt by the person to whom it is addressed.

## PRINCIPAL.

In contracts a principal is one who, being competent to do any act for his own benefit or on his own account, confides it to another person to do for him.

The general principle which governs the liability of a principal is that the responsibility is measured by the character and extent of the authority given.

The powers of the agent must be measured and determined by the application to each particular case of ordinary business principles, and sound judgment to be exercised by the agent in executing his authority, and by the court which is to deal with the case in considering the question of responsibility of the principal. Where a discretion has been conferred upon the agent the principal must abide the result of its exercise and will be held liable to third persons where it has been honestly exercised.

The principal has, in general, and as against third persons, a right to all the advantages and benefits of the acts and contracts of his agent, and is entitled to the same remedies against such third parties in respect to such acts and contracts, as if they were made or done with him personally. But to this rule there are the following exceptions: First, when the instrument is under seal, and it has been exclusively made between the agent and the third person, as in the case of a charter party or bottomry bond made by the master of a ship in the course of his employment, in this case the principal cannot sue or be sued on it. Second, when an exclusive credit is given to and by the agent, and therefore the principal cannot be considered in any manner a party to





the contract, although he may have authorized it and be entitled to all the benefits arising from it. Third, when the agent has a lien or claim upon the property bought or sold, or upon its proceeds, which is equal to or exceeds the amount of its value, the principal cannot sue without the consent of the agent.

Contracts are frequently made by an agent without mentioning the name of the principal. In such case the principal may avail himself of the agreement; for the contract will be treated as that of the principal as well as of the agent. If, however, the person with whom the contract is made, bona fide dealt with the agent as owner, he will be entitled to set off any claim he may have against the agent, in answer to the demand of the principal.

The principal is bound to fulfill all the engagements made by the agent for or in the name of the principal, which come within the scope of his usual employment, although the agent in the particular instance has in fact exceeded or violated his private instructions.

The death of the principal usually revokes the authority to act for him or for his estate.

A principal who accepts the benefits of a contract made on his behalf by his authorized agent is responsible for the fraudulent representation of the agent, although such representation was made without authority.

## PRINTED FORMS.

Words written in a printed form, such as a contract, or insurance policy, will, in case of doubt, have a greater effect than the printed words.

## PROCEEDS.

Money or articles of value arising or obtained from the sale of property. Goods purchased with money arising from the sale of other goods, or obtained on their credit, are proceeds of such goods. Proceeds does not necessarily mean money.

## PROMISSORY NOTE.

A written promise to pay a certain sum of money, at a future time, unconditionally; an unconditional written promise, signed by the maker, to pay absolutely and at all events, a sum certain, in money, either to the bearer or to a person therein designated or his order.

The form of a promissory note is unessential, providing it contains the essential ingredients thereof. There are two principal qualities essential to the validity of a note, *viz.*: First that it be payable at all events, not dependent on any contingency, nor payable out of any particular fund. Second, it is required that it be for the payment of money (though statutes in some states have made notes payable in merchandise negotiable); that is, in whatever is legal tender at the place of payment.

A promissory note should be dated and signed, but it is never under seal,

even when made by a corporation, though it has been held that a paper seal of a corporation on an instrument in the form of a promissory note should be regarded as mere excess.

He who makes the promise is called the maker, and he to whom it is made is the payee. Other parties to a note are the indorsers and indorsees.

A promissory note payable to order or bearer passes by indorsement, and, although it is a chose in action, the holder may bring suit on it in his own name. Although it is a simple contract, a sufficient consideration is implied from the nature of the instrument. It has been urged that, upon principle, negotiable instruments are contracts binding by their own force, not, therefore, requiring any consideration.

When the back of a note is covered by various indorsements, an assignment of the note, written on a separate piece of paper and pasted to the note, will pass the legal title.

A promissory note does not discharge the debt for which it is given, unless such be the agreement of the parties; it only operates to extend the period for the payment of the debt.

## PROTEST.

Is a notarial act, made for want of payment of a promissory note, or for want of acceptance or payment of a bill of exchange.

The duty of protesting commercial papers is an important one. In performing this duty it should be borne in mind that the real purpose of this every-day formal preliminary is that of fixing a contingent liability that would otherwise be released altogether, risking, if not losing outright, the entire debt according to the degree of responsibility of the original debtor. Although this task is so simple and of an every-day occurrence, it is still a great and delicate responsibility, for any blunder in the execution of which the party risks a liability in damages. It demands precision and promptness, and one should not undertake its performance before he has a clear understanding of his duties. And to acquire this undertsanding one must become familiar with the legal principles which govern collections of such commercial papers as bills of exchange and promissory notes.

Protest is the act of marking or noting on a promissory note the want of payment, and on a bill of exchange the want of acceptance or payment, by which it is formally declared that all parties to the instrument will be held responsible to the holder for all damages, exchanges, re-exchanges, etc. This word is often used to include the "Certificate of Protest," which is a formal instrument, made by a notary public, alleging the due presentment and dishonor of a bill or note, and declaring that the notary protests the same for non-payment or non-acceptance. The word protest includes all the steps necessary to charge an indorser, *viz*: Presentment, demand, noting the protest, and Notice of Protest.

The Actual Protest is a formal paper written, wherein the notary certifies that on the day of its date he presented the original bill attached thereto,





or a copy of which is above written, to the acceptor, or the original note to the maker thereof, and demanded payment or acceptance, which was refused and that thereupon he protests against the drawer and indorsers thereof for exchange, re-exchange, damages, costs and interest, and herein called the "Certificate of Protest."

What May Be Protested.—Under the common law a foreign bill of exchange must be presented by a notary public. Inland bills and promissory notes were not originally within the rule, but by usage, and in some States by statutes, this convenient method of fixing liability on commercial paper has been applied to this class of instruments in the same manner as to foreign bills. As to bills of exchange, the State and the United States are foreign to each other. Even when the drawer and drawee live in the same State, but the bill is payable in another, it is a foreign bill.

Who Makes the Protest.—It is everywhere an official duty of notaries to make protests. But a protest need not be made by a notary to be valid except if a foreign bill of exchange. It may in many cases be made by other functionaries, and even by merchants. Nor does the law merchant require the notary to do more than make the protest itself; the subsequent duty of notifying indorsers may be performed by the holder of the note. Still, it is common usage for the notary to make the demand for payment, and in case of refusal, protest the paper and give notice of non-payment to all prior parties. Indeed, in some places, statutes empower him to give this notice, but if they did not, he might properly do so. An indorser cannot insist on having notice directly from the holder of the paper; it may be given by a notary or by any agent, only an agent who gives notice of the dishonor of the paper has not the benefit of the rule which allows an actual party who has an interest in the paper, a whole day in which to give notice to the party to whom he looks for payment. And as the notary is, in fact, only the holder's agent, the son of the holder, if a notary, is not prevented by relationship from protesting paper for his father. But, generally speaking, the notary must make the protest himself; he should not leave it to his clerk. And where two notaries are partners, one of them cannot protest paper as the other's agent.

Notice of Protest.—The paper having been dishonored, it is the duty of the notary to give prompt notice of the fact to all parties in interest. Such notice of dishonor or protest is bringing, either verbally or by writing (usually the latter), to the knowledge of the parties liable on the paper the fact that the paper upon proper proceedings taken, has not been accepted, or paid, and that the party notified is expected to pay it. The elements of such a notice are: An identification of the instrument, a statement of its proper presentment and demand for acceptance or payment, which was refused, a statement of its non-acceptance or non-payment, that the holder expects the party notified to pay, and that the notification be signed by the sender. No technical phrases are necessary in such notice. It is only required that the terms used be such as fairly and naturally lead a mind of ordinary intelligence to the idea that the paper has been presented at maturity and dishonored, and that the party notified is looked to for payment. Following is a form extensively used:

....., A. D. ...

To .....

Take notice, That the (bill or note) ..... for .....
($.....), made by ....., dated ..... .....
payable (on demand or, etc.) at ....., and endorsed by you, has this
day been presented at ..... and demand made for (acceptance
or payment) thereof, which has been refused. Said (bill or note) has been protested
for (non-acceptance or non-payment), and the holders now look to you for payment
of the same. Yours, etc.,

.....,

Notary Public in and for ..... County, .....

The notice must be explicit and in no way calculated to mislead the party to whom it may be given. It must be sufficiently definite in its description of the paper to enable the indorser to know to what instrument in particular the notice refers. A notice which barely puts the indorser upon his inquiry is not sufficient.

The notice must be given by the holder of the paper, on any person who is a party to it, and who would on the same being returned to him, have a right of action upon it. A notice by a mere stranger is not sufficient. But an agent of, or any person duly authorized by the holder, may give notice.

An unsigned written notice of the dishonor of a bill is not sufficient, but it is enough if it is signed by the notary and not by the party giving notice, and a printed notice of protest with the notary's printed signature is enough if it describes the paper accurately; it should appear also to be the officer's own act, although his name may be signed by a clerk or in print. It is only necessary that the signature be by his authority. The authentication of the notice should be the forms of the locality as they are at the time of making it.

The notice must be given to the person upon whom it is sought to fix a liability upon the instrument. It is safer practice to notify all indorsers, that is, indorsers for collection, accommodation drawer or indorser, etc., and to notify each partner, as well as the firm by name; each of the joint indorsers; persons representative, if any; if none, then some authorized person at the family residence; the bankrupt personally and the assignee of the bankrupt.

Between parties residing in the same town the indorser was formerly entitled to personal notice, either verbally or in writing, or a written notice must be left at his dwelling place, or place of business, but this rule has been relaxed so that notices may always be sent through the postoffice, whenever there is a regular communication by mail between the place of presentment or demand and the office where the person to be charged usually receives his letters and papers. This is true whether the sender and the person to be charged live in the same place or not. Some jurisdictions hold to the old rule. Unless the statute intervenes a verbal notice is sufficient, but it must be given to the indorser personally. Mere hearsay does not create a binding liability, and does not come within the reasons sanctioning the verbal notice, *viz.*: If from a conversation between the parties it can be ascertained as a fact that the party against whom the liability is sought to be enforced well understood





what instrument was referred to, it is sufficient. It seems also to be the rule that a verbal notice is less strictly construed than a written one. This is because a verbal communication to the indorser, and which calls forth a conversation about the instrument in question, is very different from a written notice sent to the indorser. The latter constitutes the only means of information as to the instrument intended by it; if misdescribed the indorser is wronged, because he is misled. With a verbal notice, however, he has the opportunity of informing himself fully.

Notice of dishonor may be sent as soon as there is an unqualified refusal to accept or pay the instrument, and must be sent if the parties reside in the same place, before the expiration of the proper hours of business of the day following the dishonor; and, where the parties reside in different places, the notice must be put in the postoffice in time to go by mail the day next succeeding the day of dishonor, or the first possible or practical mail after the default.

The need of promptness in carrying or sending the notice of the dishonor of the paper can hardly be overrated. A bill of exchange must be protested, or there must be a noting of the protest on it, on the same day as the presentment and demand. The notice should be given by the earliest available mail after the paper has been protested—if not on the same day, on the next, though if that should be Sunday, and if Saturday was the proper day for demand, Monday has been held early enough. But in one case where the note was protested two hours before mail time, it was regarded as negligence to wait until after the mail had closed.

SERVICE OF NOTICE.—The common law rule is that the notice should be delivered in person if the party to be notified is within easy reach, but may be sent by mail if he lives out of town or at any inconvenient distance. But in Michigan it is enacted, that "Whenever the indorser or indorsers of any promissory note, or the drawer or indorser of any check, draft or bill of exchange, shall reside or have a place of business, or upon information obtained by diligent inquiry shall be reported to reside or have a place of business in the same city, village or township where such promissory note, draft, check or bill of exchange is made payable, or may be legally presented for payment or acceptance, all notices of the non-payment or non-acceptance thereof may be served by depositing such notices with the postage prepaid, in the postoffice in the city, township or village where such promissory note, draft, check or bill of exchange is made payable, or may be legally persented for payment or acceptance, properly directed to such drawer or indorser at such city, village or township, and whenever any promissory note, check or draft shall not be made payable at any place, notices of non-payment or non-acceptance may be served by depositing the same in a postoffice, prepaid, directed to the drawer or indorser at his reputed place of postoffice delivery, such reputed place of business, residence or postoffice delivery to be ascertained by the best information that can be obtained by diligent inquiry therefor." This is so, too, in Alabama.

Notwithstanding this, it is the safer way, and more in accordance with

established principles, to serve the notice personally, if possible. It has been held that the notice ought to be delivered in person and not sent by mail when the holder, or his agent, the notary, lives in the same town with the indorser, and that it should either be served on the indorser himself, or at his residence or place of business; so, too, when the two live within two miles of each other.

The rule requiring an indorser to be promptly notified of the dishonor of a note is one not of form, but of substance. It is legal condition of the contract that he shall be notified or discharged, unless where reasonable diligence fails to find him, and this rule requires that the person giving the notice shall use such means as are reasonably calculated to find out the indorser's residence. And it is the plain and obvious duty of a notary public to make diligent search and inquiry as to the residence of an indorser, which search, while not required to be unreasonably long, where he has no clue, should be real and not formal.

The service is good if the notice is left with one in charge of the indorser's place of business; but not if only left at the place of business of a man of the same name as the indorser, the notary not being informed of the indorser's residence. If left at the house or office it must be certain that it was the right place and not some other under the same number, or that it was left with some person in charge. But it was enough for the notary to call at the house, find it locked, be told by a neighbor that the indorser was out of town with his family on a visit for he did not know how long, and leave the notice next door, with the request that it be handed to the indorser when he came back. If the notice is given directly to the indorser himself, the service is good wherever it is made.

Notice by mail of non-payment may properly be made by a notary, acting therein as the holder's agent, just as he does in delivering it personally. But it is not enough for him to mail it to the place of the note's date unless the indorser lives there or the holder has used reasonable diligence to learn his residence. It is sufficient if it is sent to the postoffice nearest the indorser's residence, or to that where he is in the habit of receiving his letters, or to that from which he would get notice soonest. An indorser living in the wilderness twenty miles from any postoffice cannot be served by mail, however, but must be notified in person, or by special messenger. Where there are several parties to whom notices of protest are to be given, and the notary only knows the residence of the last indorser, he should make out one notice for each and inclose them all to the last indorser. Distant parties receiving their own notice from a notary may transmit notice according to the laws of their residence, if that is the place where they signed.

Certificate of Protest.—The notary's certificate should contain the protest, a statement of the time, manner and place of the demand, for if it does not it will not appear that the paper was duly dishonored, and the names of the parties of whom the demand is made, and of whose request it is made, and of the parties notified. It is not vitiated by mere verbal mistakes, and indeed the notice of protest itself is not vitiated even when it mistakes the amount, as $175 for $200, if the indorser is not misled thereby.





FORM OF CERTIFICATE OF PROTEST.

State of Michigan,
County of .....
ss.

Be it Known, That on the ..... day of ....., A. D. ....., at the request of ..... I, a Notary Public, duly commissioned and sworn, residing in the ..... of ....., County and State aforesaid, did, etc., (stating facts concerning presentment, etc.).....and demanded ..... thereof, which was refused.

Whereupon, I, the said Notary, at the request aforesaid, did PROTEST, and by these presents do solemnly protest, as well against the Drawers, Makers and Endorsers of the said ..... as against all others whom it doth or may concern for exchange, re-exchange, and all costs, charges, damages and interest already incurred and to be incurred by reason of the non-..... of the said .....

And I, the said Notary, do hereby certify, that on the same day and year aforesaid, due notices, that said ..... had thus been presented for ..... and that ..... thereof had been thus demanded and refused, and that the holders of the said ..... did and would look to the drawers, makers and endorsers thereof for payment of the same, were put into the Postoffice at ....., with the full legal postage paid thereon, and directed as follows, after diligent inquiry being made for the residence and place of business of the drawers and indorsers:

Notice for ..... Directed .....
Notice for ..... Directed .....
Notice for ..... Directed .....
Notice for ..... Directed .....
Notice for ..... Directed .....
Notice for ..... Directed .....

And I further certify, that like notices were left as follows:

Notice for ..... ("Left at" or "delivered to him personally").
Notice for ..... ("Left at" or "delivered to him personally").
Notice for ..... ("Left at" or "delivered to him personally").
Notice for ..... ("Left at" or "delivered to him personally").

Each of the above named place being the reputed place of residence or business of the person to whom the notice was directed, or for whom it was left as aforesaid.

In Witness Whereof, I have hereunto subscribed my name and affixed my seal of office. .....,

Notary Public in and for ..... County, .....
My commission expires.....

A notarial certificate of protest in a foreign country or state, proves itself, and is sufficient evidence of the dishonor of a foreign bill. The custom of merchants requires that there should be a protest in case of the non-acceptance of a foreign bill of exchange; and the proper officer to make this protest is a notary public. Drawn up in the usual form the certificate of the notary should be authenticated by his seal of office; so executed, it is received in all courts, without any auxiliary support, as evidence of the protest in the foreign state. Whether it would be entitled to full credit without a seal, admits of question; but it seems that if executed in the manner pointed out by the local law, it will be sufficient.

But it has been held in Alabama that the notary's seal is an essential part

of the certificate of protest, and that unless the seal be affixed the certificate will be insufficient evidence of protest.

For the convenience of trade and commerce, the certificate of the notary who has protested a foreign bill, given under his seal of office, is made evidence of the protest in a foreign state, without any auxiliary support, and is so received in all courts according to the usage and custom of merchants.

In some of the States, the certificates of the notary, under his hand and official seal, is by statute made competent evidence, prima facie, of the matters by him transacted, in relation to the presentment and dishonor of the bill, and of notice thereof to the parties liable.

## RECEIPT.

A written acknowledgment of payment of money or delivery of chattels. It is an admission only.

The mere acknowledgment of payment made by a receipt is not treated in law as binding or conclusive in any high degree, it is presumptive evidence only, and is, in general, open to explanation, being an exception to the general rule that patrol evidence cannot be admitted to contradict or vary a written instrument. A party may always show, in explanation of a receipt limited to such acknowledgment, the actual circumstances under which it was made, *e. g.*, that it was given under a mistake, or that no money was actually paid, as stated in the receipt, or that it was obtained by fraud, etc.

A receipt in full for part of an undisputed claim does not prevent recovery of the balance, though given with knowledge, and there was no error or fraud. However, when we find a receipt acknowledging payment "in full," of a specific debt, or "in full of all accounts," or of "all demands" the instrument is of a much higher and more conclusive character. It does not indeed, like a release, operate upon the demand itself, extinguishing it by any force or virtue in the receipt, but it is evidence of a compromise and mutual settlement of the rights of the parties. It is inferred, from such an acknowledgment, that there has been a mutual adjustment and settlement of the amount due, after consideration of the claims of the respective parties, and a payment of the specified sum as a final satisfaction. A compromise thus shown by a receipt will often operate to extinguish a demand, although the creditor may be able to show that he did not receive all that he justly ought.

Papers showing a receipt of money in full satisfaction of a decree appealed from, cannot be varied or contradicted by parol evidence.

A receipt for a note taken in payment of an account will not, in general, constitute a defense to an action on the account, unless it appears, by proof, that the creditor agreed to receive the note as payment and take the risk of its being paid.

A receipt for rent for a given term has been held to be prima facie evidence of the payment of all rent previously accrued.

A receipt signed in the name of a certain person by another person, constitutes no evidence of the receipt of the money by the latter.





## REDRAFT.

A bill of exchange drawn at the place where another bill was made payable and where it was protested, upon the place where the first was drawn, or, when there is no regular commercial intercourse rendering that practicable, then in the next best or most direct practical course.

## RE-EXCHANGE.

The expense incurred by a bill being dishonored in a foreign country where it is made payable and returned to that country in which it was made or indorsed and there taken up.

The drawer of a bill is liable for the whole amount of re-exchange caused by the circuitous mode of returning the bill through the various countries in which it has been negotiated, as much as that occasioned by a direct return.

In some States legislative enactments have been made which regulate damages on re-exchange.

## SHOP-BOOKS.

The books of a retail dealer, mechanic, or other person, in which entries or charges are made of work done, or goods sold and delivered to customers, commonly called "account-books," or "books of account." The parties own shop-books are in certain cases admissible in evidence to prove the delivery of goods therein charged, where a foundation is laid for their introduction. The following are the general rules governing the production of this kind of evidence:

First, that the party offering the books kept no clerk;

Second, that the books offered by the party are his books of account, and that the entries therein are in his handwriting;

Third, it must appear, by some of those who have dealt with the party and settled by the books offered, that they found them correct;

Fourth, it must be shown that some of the articles charged have been delivered.

Where memoranda made by a clerk during the day, are at night transferred to the book by another, who did not know the truth of the facts recorded by the former, the book is **not** competent testimony and cannot be used to refresh the memory of the party who made the memoranda.

## SOLVENT.

One who has sufficient to pay his debts and all obligations.

A person is solvent who owns property enough and so situated that all his debts can be collected from it by legal proceedings; but other cases hold that to be solvent one must be able to pay his debts in the ordinary course of trade.

## TENDER.

An offer to deliver something, made in pursuance of some contract or obligation, under such circumstances as to require no further act from the party making it to complete the transfer.

Tender of money must be made, by some party authorized by the debtor, to the creditor or to some person properly authorized, and who must have capacity to receive it, in lawful coin of the country, or paper money which has been legalized for this purpose, as United States Treasury notes and "greenbacks," or foreign coin made current by law.

A tender in bank notes will be good if not objected to on that account, so a refusal to accept a check for the sole reason that it was insufficient in amount, is a waiver of all objections to the form of the tender.

The exact amount due must be tendered, but more may be tendered, if the excess is not to be handed back, yet asking change does not vitiate the tender unless objection is made on that account.

The offer must be unqualified, as a tender accompanied with conditions which the party has no right to impose is of no avail.

He who tenders must be ready to pay or have within his reach the means to pay and actually offer to pay. The money need not always be brought forward as well as offered, especially if the party to whom it is offered refuses to receive it.

One who makes a tender in order to stop the running of interest must show that he has kept on hand, so as to be constantly ready and able to pay, the amount of the tender, in lawful money, at any time the creditor should elect to take it.

The tender of money is supposed to be an admission by the debtor that the entire sum tendered is due and payable, yet it is not conclusive evidence to that effect, so where tender was made after suit brought, and the amount supposed by the defendant to be due was paid into court, it was decided that the full amount must be paid over to the plaintiff, notwithstanding a much less sum was found by arbitrators to be due.

The amount of the tender must be stated in making the offer; it must be made at a suitable hour of the day, during daylight, at the time and place agreed upon, or, if no time or place has been agreed upon, whenever and wherever the person authorized to receive payment may be found.

## USURY.

The excess, over the legal rate, charged to a borrower for the use of money. It will be seen that unless there is a law limiting the rate of interest that can be charged there can be no usury.

The shifts and devices of usurers to evade the statutes against usury have taken every shape and form that the wit of man could devise, but none have been allowed to prevail. Courts have been and are astute in getting at the true intent of the parties and in giving effect to the statutes.





If a contract is usurious, no custom can legalize it, and the enactment of a usury law cannot affect prior contracts.

A note void from usury cannot be enforced by an innocent purchaser for value.

The common practice of reserving interest on negotiable paper at the time of making the loan is very ancient, and is sanctioned by law, and an agreement to pay interest annually in advance is not usurious.

To constitute usury, there must be a loan in contemplation of the parties; there must be a contract for the return of the money at all events, and not upon a contingency, and the borrower must be obliged to pay more than the lawful rate of interest. But it matters not in what manner the usurious interest is to be paid.

The ordinary commissions allowed by the usages of trade may be charged without tainting a contract with usury; but it must plainly appear that the commissions are charged for other services, and are not merely a device to evade the law. A bonus paid to an agent in addition to legal interest renders the loan usurious, when such bonus ensures to the benefit of the principal under the agent's contract. A commission charged in addition to interest, for advancing money is usurious. Where a banker discounts a bill payable in a distant place, he may charge the usual rate of exchange on that place, but if such charge be in excess of the usual rate it will be considered a device to cover usurious interest.

Interest may be collected on interest coupons.

The defense of usury must be supported by clear proof, which may be extrinsic to the contract but an express agreement for usury need not be proved.

The one who has contracted to pay usury, and his legal representatives, or his surety, may set up the defense; but one who buys an equity of redemption cannot set up the defense against the mortgage.

## VALUE RECEIVED.

A phrase usually employed in a bill of exchange or promissory note, to denote that a consideration has been given for it. In most States these words are not necessary.

This expression in a bill of exchange implies that the drawer of the bill may be presumed to acknowledge the fact that he has received value of the payee, or, when the bill has been made payable to the order of the drawer and accepted, that value has been received by the acceptor. In a promissory note it imports value received from the payee, and sufficiently expresses a consideration, although not necessarily in money.

Extrinsic evidence is admissible between the immediate parties to prove absence, failure, or illegality of consideration.

## COMMERCIAL LAW FORMS.

To publish a complete set of such legal forms as are commonly used in each state for various commercial transactions would require a volume by itself and is moreover unneccessary. Commercial law forms, adapted to the legal and statutory requirements of each state are everywhere published and may be obtained for a small sum at a stationer's. The forms here given are mainly for the purpose of illustrating and making clear certain principles underlying commercial transactions as found in the text, rather than as models to be followed in particular cases. It must be remembered that a form prepared for use in one state, may not be adapted to use under the laws of another state. Familiarity with the law and with law forms is, however, necessary to the proper use of printed blanks, and illustrations are here given of the principal commercial law forms completely filled out to fit certain hypothetical transactions. Business men and students who have wrestled with printed blanks will readily appreciate the value of the fully drawn illustrative forms herein contained.

### I. A SIMPLE CONTRACT.

Agreement entered into this 15th day of March, A. D. 1909, between John Doe, party of the first part, and Richard Roe, party of the second part.

Witnesseth, that the party of the first part, in consideration of the agreement of the party of the second part, hereinafter set forth, agrees to deliver to the said party of the second part at his place of business in New York City, on or before May 15, 1909, ten tons of No. 1 express wrapping paper, freight prepaid.

The said second party in consideration of the agreement of the said first party, hereby agrees to pay to the said first party the sum of six hundred dollars on or before thirty days after the receipt of said paper, and agrees to honor a thirty day's draft for the said amount upon receipt of goods.

John Doe.
Richard Roe.

### II. AN INDEMNITY BOND.

Know All Men by These Presents, That.....John Doe, as principal, and.....Richard Roe and Samuel White, as sureties, are.....held and firmly bound unto the Smith Harvester Company, a corporation, in the sum of Five Thousand Dollars ($5,000.00) lawful money of the United States of America, to be paid to the said Smith Harvester Company, or to its certain attorney, successors or assigns, to which payment well and truly to be made, we bind ourselves, heirs, executors and adminstrators, and each and every one of them, firmly by these presents.

Sealed with our seals, dated the first day of March, A. D. 1909.

The Condition of this Obligation is such, That if the said John Doe, his heirs, executors, administrators or assigns, shall pay or cause to be paid to the said Smith Harvester Company, on or before the first day of May, A. D.





1909, the sum of twenty-five hundred ($2,500.00) dollars due from the said John Doe to the said Smith Harvester Company, then this obligation is to be void, otherwise to remain in full force.

| | |
|---|---|
| John Doe. | L. S. |
| Richard Roe. | L. S. |
| Samuel White. | L. S. |

Signed Sealed and Delivered
in Presence of
George Brown.
Daniel Scott.

State of Michigan }
County of Wayne } ss.

Richard Roe and Samuel White, of the City of Detroit, in said County of Wayne, the sureties named in and who signed the within and foregoing bond, being duly sworn, each for himself deposes and says that he is worth in unincumbered property, not exempt from execution under the laws of this State, the sum of Five Thousand ($5,000.00) Dollars, after payment of all just debts, claims and liabilities.

Richard Roe.
Samuel White.

Subscribed and sworn to before me, this 1st day of March, A. D. 1909.

John E. Jones,
Notary Public, Wayne County, Mich.
My commission expires Dec. 30, 1910.

### III. A POWER OF ATTORNEY.

Know All Men by These Presents, That I, Richard Roe, have made, constituted and appointed, and By These Presents, do make, constitute and appoint John Doe my true and lawful Attorney for me in my name, place and stead, to lease, sell, or make any other disposition of any and all real estate of which I may be possessed, and to sign, seal and deliver any agreement, lease, land contract, quit-claim or warranty deed to all persons who shall lease, purchase or agree to purchase any of the said lands and premises or parts thereof, and in due form of law to acknowledge any instrument necessary to the proper leasing or conveyance of said lands and premises or any part thereof, giving and granting unto John Doe, my said Attorney, full power and authority to do and perform all and every act and thing whatsoever requisite and necessary to be done in and about the premises, as fully to all intents and purposes, as I might or would do if personally present, with full power of substitution and revocation, hereby ratifying and confirming all that my said Attorney or his substitute shall lawfully do or cause to be done by virtue hereof.

In Witness Whereof, I have hereunto set my hand and seal the 10th day

of March, one thousand nine hundred and nine. Richard Roe. L. S.
Sealed and Delivered in
Presence of
Samuel White.
George Brown.

State of Michigan }
County of Wayne } ss.

Be it Known, That on this tenth day of March, one thousand nine hundred nine, before me, a Notary Public in and for said County, personally appeared Richard Roe above named, who is to me known to be the person described in and who executed the above Letter of Attorney, and acknowledged the same to be his own free act and deed.

John E. Jones,
Notary Public, Wayne County, Mich.
My commission expires Dec. 30, 1910.

### IV. ARTICLES OF CO-PARTNERSHIP.

Articles of Agreement, Made the second day of January, in the year one thousand nine hundred nine, between John Doe and Richard Roe, witnesseth as follows:

The said parties above named have agreed to become co-partners in business, and by these presents do agree to become co-partners together under the firm and partnership name of John Doe and Company, for the purpose of conducting a general retail boot and shoe business, the said partnership to commence on the second day of January, A. D. 1909, and to continue for three years thereafter.

To that end and purpose the said John Doe has contributed the stock of boots and shoes now owned by him and located at the store known as 130 Main Street, of the value of Ten Thousand Dollars, and the said Richard Roe has contributed the sum of Five Thousand Dollars in cash, the capital stock so formed to be used and employed in common between them, for the support and management of the said business, and to their mutual benefit and advantage.

It is agreed by and between the parties hereto that at all times during the continuance of their co-partnership they and each of them will give their personal attention to the said business, and will to the utmost of their skill and power exert themselves for their joint interest, profit, benefit and advantage, in the said business.

It is Also Agreed by and between the parties hereto, that they shall and will at all times during the said co-partnership, bear, pay, and discharge equally between them, all rents and other expenses that may be required for the support and management of the said business; and that all gains, profits and





increase that shall grow or arise from or by means of the said business, shall be divided between them as follows: Two-thirds to the said John Doe and one-third to the said Richard Roe.

It is Also Agreed by and between the parties hereto, that there shall be had and kept at all times during the continuance of their said co-partnership, perfect, just and true books of account; which said books shall be used in common between the said partners, so that either of them may have access thereto, without any interruption or hindrance from the other.

And also, that the said partners, once in every six months or oftener, if necessary, shall make, yield, and render, each to the other, a true, just and perfect inventory and account of all profits by them or either of them made, and of all losses by them or either of them sustained, and such inventory and account being so made, the said parties shall and will adjust, pay and deliver, each to the other, at the time, their just share of the profits, and pay and bear their just share of the expenses and losses so made as aforesaid.

It is also agreed by and between the parties hereto, that during the continuance of the said co-partnership neither of them shall nor will indorse any note, or otherwise become surety for any person or persons whomsoever, without the consent of the other of the said partners.

It is Also Agreed by the parties hereto, that in case of the violation of any of the foregoing covenants and obligations by either of the parties hereto, the party not in default may, at his option, dissolve the said partnership, by giving the party in default thirty days' previous notice in writing of his election so to do.

In Witness Whereof, the parties hereto have hereunto set their hands and seals, the day and year first above written.

John Doe.
Richard Roe.

### V. NOTICE OF DISSOLUTION OF PARTNERSHIP.

Take notice that the firm of John Doe and Company, doing a general retail boot and shoe business at 130 Main Street, Ann Arbor, Michigan, is this day dissolved. All debts due the firm are payable to John Doe, who also assumes all obligations and indebtedness of the firm and will continue the business at the above address.

John Doe.
Richard Roe.

Dated, Ann Arbor, January 2, 1910.

### VI. A NEGOTIABLE PROMISSORY NOTE.

$500.00. New York, February 22, 1909.

Thirty days after date I promise to pay to the order of Richard Roe.....

Five Hundred..... Dollars
at the First National Bank, New York.

Value received with interest at 6 per cent. per annum.

JOHN DOE.

VII. BILL OF EXCHANGE OR DRAFT.

$100.00. BOSTON, May 1, 1909.

Thirty days after date pay to John Doe or order, One Hundred Dollars, value received, and charge to the account of

To Smith and Jones, RICHARD ROE.
New York City.

VIII. CHECK.

GRAND RAPIDS, MICH.,.....June 1, 1908. No. 643.

GRAND RAPIDS SAVINGS BANK.

Pay to order of Richard Roe.....$52.43/100

Fifty-two and 43/100.....Dollars.

JOHN DOE.

IX. CERTIFICATE OF DEPOSIT.

PHILADELPHIA, March 6, 1909.

THE WILLIAM PENN TRUST COMPANY.

$200.00.

John Doe has deposited at the William Penn Trust Company, Two Hundred ..... Dollars payable to himself or order upon the return of this certificate, with interest at 2% per annum.

THE WILLIAM PENN TRUST COMPANY.
By Richard Roe, Cashier.

X. ARTICLES OF INCORPORATION (ILLINOIS.)

STATE OF ILLINOIS } ss.
COOK COUNTY }

To JAMES A. ROSE, Secretary of State:

We, the undersigned, John Doe, Richard Roe, and Samuel White, propose to form a corporation under an Act of the General Assembly of the State of Illinois, entitled "An Act Concerning Corporations," approved April, 18, 1872, and all acts amendatory thereof; and, for the purpose of such organization we hereby state as follows, to-wit:

1. The name of such corporation is—The Chicago Millinery Company.
2. The object for which it is formed is to engage in the—general manufacture and sale of millinery.





3. The capital stock shall be Ten Thousand Dollars.
4. The amount of each share is Twenty-five Dollars.
5. The number of shares is Four Hundred.
6. The location of the principal office is Chicago, in the County of Cook, State of Illinois.
7. The duration of the corporation shall be Fifty Years.

JOHN DOE.
RICHARD ROE.
SAMUEL WHITE.

STATE OF ILLINOIS } ss.
COOK COUNTY }

I, John E. Jones, a Notary Public in and for the County and State aforesaid, do hereby certify that on the 14th day of March, A. D. 1909, personally appeared before me, John Doe, Richard Roe and Samuel White, to me personally known to be the same persons who executed the foregoing statement, and severally acknowledged that they executed the same for the purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the day and year above written.

JOHN E. JONES,
Notary Public.

XI. ARTICLES OF INCORPORATION (MICHIGAN.)

(COMMON AND PREFERRED STOCK)

(CUMULATIVE DIVIDENDS)

*ARTICLES OF ASSOCIATION*

OF

THE COMMERCIAL AUTOMOBILE COMPANY.

We, the undersigned, desirous to become incorporated under the provisions of Act No. 232, of the Public Acts of 1903, entitled "An act to revise and consolidate the laws providing for the incorporation of manufacturing and mercantile companies or any union of the two, and for the incorporation of companies for carrying on any other lawful business, except such as are precluded from organization under this act by its express provisions, and to prescribe the powers and to fix the duties and liabilities of such corporations," and the acts amendatory thereof and supplementary thereto, do hereby make, execute and adopt the following articles of association, to-wit:

ARTLCLE I.

The name assumed by this association, and by which it shall be known in law, is

THE COMMERCIAL AUTOMOBILE COMPANY.

Article II.

The purpose or purposes of this corporation are as follows:

The manufacture and sale of commercial motor vehicles, gasoline engines, and automobile parts.

Article III.

The principal place at which operations are to be conducted is at Detroit, in the County of Wayne, State of Michigan.

Article IV.

The capital stock of the corporation hereby organized is the sum of Three Hundred Thousand Dollars, of which One Hundred Thousand Dollars shall be common stock, and Two Hundred Thousand Dollars shall be preferred stock. The preferred stock shall be subject to redemption at par on the first day of July, A. D. 1914, and the holder shall be entitled to a dividend of 6 per cent. per annum, payably semi-annually, which shall be cumulative and payable before any dividend shall be set apart or paid on the common stock. The preferred stockholders shall be entitled to vote for directors.

Article V.

The number of shares into which the capital stock is divided is Thirty Thousand of the par value of Ten Dollars each.

Article VI.

The amount of common stock subscribed is Fifty Thousand Dollars. The amount of preferred stock subscribed is One Hundred Thousand Dollars.

Article VII.

The amount of common stock actually paid in is the sum of Twenty-five Thousand Dollars, of which Twenty-five Thousand Dollars has been paid in cash, and ..... no .....dollars has been paid in other property.

The amount of preferred stock actually paid in is the sum of Fifty Thousand Dollars, of which Fifty Thousand Dollars has been paid in cash, and ..... no .....dollars has been paid in other property.

Article VIII.

The office in the State of Michigan for the transaction of business shall be kept at

Detroit, Wayne County, Michigan.

Article IX.

The term of existence of this corporation is fixed at thirty years from the date hereof.





Article X.

The names of the stockholders, their respective residences, and the number of shares of stock subscribed for by each are as follows:

| Names. | Residence. | No. of Shares. | |
|---|---|---|---|
| | | Common | Preferred. |
| John Doe | Detroit, Mich. | 50 | 100 |
| Richard Roe | Ann Arbor, Mich. | 100 | 300 |
| John White | Detroit, Mich. | 50 | 100 |
| Samuel Jones | New York City. | 25 | |
| Richard Flint | Philadelphia, Pa. | 25 | |

In Witness Whereof, We, the parties hereby associating, for the purpose of giving legal effect to these articles, hereunto sign our names, this 1st day of April, A. D. 1909.

John Doe.
Richard Roe.
John White.
Samuel Jones.
Richard Flint.

State of Michigan }
County of Wayne } ss.

On this first day of April, 1909, before me, a Notary Public in and for said County, personally appeared John Doe, Richard Roe, John White, Samuel Jones and Richard Flint, known to me to be the persons named in, and who executed the foregoing instrument, and severally acknowledged that they executed the same freely and for the intents and purposes therein mentioned.

John Davis,
Notary Public, Wayne Co., Mich.
My commission expires Dec. 29, 1910.

XII. Waiver of Notice of Stockholder's Meeting.

We, the undersigned, being all of the stockholders and incorporators of the Commercial Automobile Company, do hereby waive the statutory notice of first meeting of stockholders and publication of the same and consent that such meeting be held on the 10th day of April, 1909, at 326 Majestic Bldg., Detroit.

John Doe.
Richard Roe.
John White.
Samuel Jones.
Richard Flint.

Detroit, April 5, 1909.

XIII. Certificate of Stock.

Incorporated Under the Laws of the State of Michigan.

COMMERCIAL AUTOMOBILE COMPANY.

CAPITAL STOCK $300,000.

NUMBER 102. FULLY PAID.

SHARES 50 NON-ASSESSABLE.

THIS CERTIFIES THAT John Doe is the owner of Fifty Shares of the Capital stock of the

COMMERCIAL AUTOMOBILE COMPANY.

transferable only on the books of the Corporation by the holder hereof in person or by Attorney upon surrender of this Certificate properly endorsed.

S E A L.

IN WITNESS WHEREOF, the said Corporation has caused this certificate to be signed by its duly authorized officers and to be sealed with the Seal of the Corporation this 15th day of April, A. D. 1909.

RICHARD ROE, Secretary.

JOHN DOE, President.

SHARES $10 EACH.

### XIV. BILL OF SALE.

KNOW ALL MEN BY THESE PRESENTS, That John Doe, of the City of Detroit, in the County of Wayne, and State of Michigan, of the first part, and in consideration of the sum of Nine Hundred and Fifty Dollars, lawful money of the United States, to him paid by Richard Roe, of the second part, the receipt whereof is hereby acknowledged, has bargained and sold, and by these presents does grant and convey, unto the said party of the second part his executors, administrators or assigns, all the following goods and chattels, to-wit: One Eagle Automobile, manufacturer's number 6432, belonging to him and now in his possession at 306 Ferry Ave., Detroit.

To Have and to Hold the same unto the said party of the second part, his executors, administrators and assigns, FOREVER. And the said party of the first part, for himself, heirs, executors and administrators, does covenant and agree to and with the said party of the second part, his executors, administrators and assigns, to Warrant and Defend the sale hereby made of said property, goods and chattels, unto the said party of the second part, his executors, administrators and assigns, against all and every person or persons whatsoever.

In Witness Whereof, I have set my hand and seal this 19th day of February, A. D. 1909.

Signed, Sealed and Delivered in Presence of

MARY SMITH.

GEORGE BROWN.

JOHN DOE. L. S.





### XV. CHATTEL MORTGAGE.

(POWER OF SALE, INSECURITY CLAUSES.)

KNOW ALL MEN BY THESE PRESENTS, That Richard Roe, party of the first part, being justly indebted unto John Doe, party of the second part, in the sum of Two Hundred and Fifty Dollars, has, for the purpose of securing payment of said debt, and the interest thereof, granted, bargained, sold and mortgaged, and by these presents does grant, bargain, sell and mortgage unto the said party of the second part, the following goods, chattels and personal property, to-wit:

One Eagle Automobile, manufacturer's number 6432, which said above described goods, chattels and property at the date hereof, are situate at 306 Ferry Avenue, in the City of Detroit, Wayne County, Michigan, and are free and clear from all liens, conveyances, incumbrances and levies, and for a valuable consideration he hereby warrants the above representations to be true.

To Have and to Hold the Same Forever. Provided, always, and the condition of these presents is such that if the said party of the first part shall pay or cause to be paid to the said party of the second part the said sum of two hundred and fifty dollars, being the debt aforesaid, with interest thereon at the rate of six per cent. per annum, according to the terms of a certain promissory note bearing even date herewith, executed by said Richard Roe to said party of the second part, and to which this mortgage is collateral security, then this mortgage and said promissory note shall be void and of no effect. And the said party of the first part agrees to pay the same accordingly. But if default be made in such payment, the said party of the second part is hereby authorized to and shall sell at public auction, after the like notice as is required by law for constables' sales, the goods, chattels and personal property hereinbefore mentioned, or so much thereof as may be necessary to satisfy the said debt, interest and reasonable expenses, and to retain the same out of the proceeds of such sale, the overplus or residue, if any, to belong to and to be returned to the said Richard Roe.

And the said party of the second part is hereby authorized at any time when he shall deem himself insecure, or if the said party of the first part shall sell, assign or dispose of, or attempt to sell, assign or dispose of, the whole or any part of the said goods and chattels, or remove or attempt to remove the whole or any part thereof from the said City of Detroit, without the written assent of the party of the second part, then and from thenceforth it shall and may be lawful for the said party of the second part, his executors, administrators or assigns, or his, her or their authorized agents, to enter upon the premises of the said party of the first part or any place or places where goods and chattels, or any part thereof, may be, and take possession thereof, and the same retain in some convenient place, at the risk and expense of the said party of the first part until the said sum of money shall become due as

aforesaid, and then to dispose of the same in the manner above specified.

IN WITNESS WHEREOF, the said party of the first part has hereunto set his hand and seal the 5th day of April, A. D. 1909.

Signed, Sealed and Delivered in Presence of
SAMUEL WHITE.
MARY SMITH.

RICHARD ROE. SEAL.

STATE OF MICHIGAN } ss.
COUNTY OF WAYNE }

Richard Roe, being duly sworn deposes and says that he is the mortgagor named in the annexed chattel mortgage, that he has knowledge of the facts and that the consideration of said instrument was actual and adequate and that the same was given in good faith for the purposes therein set forth.

RICHARD ROE.

Subscribed and sworn to before me this 5th day of April, 1909.

JOHN E. JONES,
Notary Public, Wayne Co., Mich.
My commission expires Dec. 30, 1910.

### XVI. WARRANTY DEED.

THIS INDENTURE, Made this twelfth day of March, in the year of our Lord one thousand nine hundred and nine BETWEEN John Doe and Mary Doe, his wife, of the first part, and Richard Roe of the second part.

Witnesseth, That the said parties of the first part, for and in consideration of the sum of Three Thousand ($3,000.00) Dollars, to them in hand paid by the said party of the second part, the receipt whereof is hereby confessed and acknowledged, do by these presents grant, bargain, sell, remise, release, alien and confirm unto the said party of the second part, and his heirs and assigns, FOREVER, all that certain piece or parcel of land, situate and being in the City of Detroit, County of Wayne and State of Michigan, and described as follows, to-wit:

Lot twenty-six (26) of Block two (2) of the subdivision of the north part of lots one (1) and two (2) of Morse's Sub-division of the Mullet Farm, according to the recorded plat thereof, Wayne County Records.

Together with all and singular the hereditaments and appurtenances thereto belonging or in anywise appertaining: To Have and to Hold the said premises, as described, with the appurtenances, unto the said party of the second part, and to his heirs and assigns, Forever, And the said John Doe and Mary Doe, his wife, parties of the first part, their heirs, executors and administrators, do





covenant, grant, bargain and agree to and with the said party of the second part, his heirs and assigns, that at the time of the ensealing and delivery of these presents they are well seized of the above granted premises in Fee Simple; that they are free from all incumbrances whatever, except a mortgage for one thousand dollars, due to the People's State Bank, and that they will, and their heirs, executors and administrators shall Warrant and Defend the same against all lawful claims whatsoever, except the said mortgage.

In Witness Whereof, The said parties of the first part have hereunto set their hands and seals the day and year first above written.

Signed, and Delivered in Presence of
MARY SMITH.
SAMUEL WHITE.

JOHN DOE. L. S.
MARY DOE. L. S.

STATE OF MICHIGAN } ss.
COUNTY OF WAYNE }

On this thirteenth day of March, in the year one thousand nine hundred and nine, before me, Notary Public, in and for said County, personally appeared John Doe and Mary Doe, to me known to be the same persons described in and who executed the within instrument, who severally acknowledged the same to be their free act and deed.

JOHN E. JONES.
Notary Public, Wayne Co., Mich.
My commission expires Dec. 30, 1910.

### XVII. QUIT-CLAIM DEED.

THIS INDENTURE, Made this twelfth day of March, one thousand nine hundred nine, BETWEEN John Doe and Mary Doe his wife, of the first part, and Richard Roe of the second part,

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of One Dollar to them in hand paid by the said party of the second part, the receipt whereof is hereby confessed and acknowledged, do by these presents, grant, bargain, sell, remise, release and forever QUIT-CLAIM unto the said party of the second part, and to his heirs and assigns, FOREVER, all that certain piece or parcel of land, situated in the City of Detroit, in Wayne County, and State of Michigan, known and described as follows:

Lot Twenty-six (26) of Block two (2) of the subdivision of the north part of lots one (1) and two (2) of Morse's Sub-division of the Mullett Farm, according to the recorded plat thereof, Wayne County Records.

TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging or in anywise appertaining; To HAVE AND To HOLD the said premises to the said party of the second part, and to his heirs and assigns, to the sole and only proper use, benefit and behoof of the said party of the second part, his heirs and assigns, FOREVER.

In Witness Whereof, the said parties of the first part have hereunto set their hands and seals the day and year first above written.

Signed, Sealed and Delivered in Presence of
Mary Smith.
Samuel White.

John Doe.
Mary Doe.

State of Michigan } ss.
County of Wayne }

On this thirteenth day of March, one thousand nine hundred nine, before me, the subscriber, a Notary Public in and for said County, personally appeared John Doe and Mary Doe, to me known to be the same persons described in and who executed the within instrument, and severally acknowledged the same to be their free act and deed.

John E. Jones.
Notary Public, Wayne Co., Mich.
My commission expires Dec. 30, 1910.

### XVIII. REAL ESTATE MORTGAGE.

(POWER OF SALE CLAUSE.)

This Mortgage, Made the twelfth day of March, in the year one thousand nine hundred and nine.

Witnesseth, That John Doe and Mary Doe, his wife, Mortgagors, mortgage and warrant to Richard Roe, Mortgagee, his heirs and assigns, the parcel of land situated in the City of Detroit, in the County of Wayne and State of Michigan, and described as follows, to-wit:

Lot Twenty-six (26) of Block two (2) of the subdivision of the north part of lots one (1) and two (2) of the Mullet Farm, according to the recorded plat thereof, Wayne County Records.

Together with the hereditaments and appurtenances thereof, to secure the payment of the principal sum of One Thousand ($1,000.00) Dollars, and interest thereon from date at the rate of six per cent. per annum, payable semi-annually, until the full payment of said principal sum, according to the terms of a promissory note bearing even date herewith, executed by John Doe and Mary Doe, to said Mortagee.

And It Is Hereby Expressly Agreed, by and between the parties hereto, as a part hereof:

1st. That said Mortgagors, within thirty days from the time the same become due and payable, will pay all taxes and assessments which shall be levied or placed upon the said land.

2nd. That said Mortgagors will, while the mortgage debt remains unpaid, keep all buildings upon the mortgaged premises insured against loss and damage by fire, by insurers, and in amount approved by the Mortgagee, with





the insurance money, in case of loss, made payable in the policy thereof to the Mortgagee or his assigns as his mortgage interest may appear, and deliver, as issued, to the Mortgagee to be kept by him all policies of such insurance, and pay, on their issue, the premium for same.

3d. That if the Mortgagors make default in the payment of any of the aforesaid taxes, or assessments, or premiums as above covenanted and agreed, said Mortgagee, or holder of the mortgage may pay the same, and that the sum or sums so paid shall, from the time of their payment, be due and payable hereon as part of the mortgage debt, with interest.

4th. That should default be made in the payment of the principal, or of any installment of interest when the same becomes due and payable or of any taxes or assessments when the same are payable, as above provided, and should the same or any part thereof remain unpaid for a period of thirty days, then, and from thenceforth, the aforesaid principal sum, with all arrearages of interest, shall at the option of said Mortgagee, his legal representatives, or assigns, become and be payable therefrom and thereafter.

5th. That upon default being made in the payment of principal or interest hereon or of any part thereof, at the time the same becomes due and payable according to the terms hereof, the said Mortgagee, his legal representatives and assigns, are hereby authorized and empowered to grant, bargain and sell, release and convey the said premises, property and appurtenances at public vendue and to execute and deliver to the purchaser or purchasers at such sale good and sufficient deeds of conveyance in law, pursuant to the statutes in such case make and provided, rendering any surplus moneys, after payment of the moneys due hereon, the attorney fee provided by law, and the costs and charges of such vendue and sale, to the said Mortgagors, their heirs, legal representatives or assigns.

In Witness Whereof, the said Mortgagors have hereunto set their hands and seals the day and year first above written.

Mary Doe. L. S.
John Doe. L. S.

Signed, Sealed and Delivered in Presence of
Mary Smith.
Samuel White.

State of Michigan } ss.
County of Wayne }

Before me, the subscriber, a Notary Public in and for said County, this 12th day of March, A. D. 1909, personally appeared John Doe and Mary Doe, known to me to be the persons described in, and who executed the within mortgage, and severally acknowledged the execution thereof to be their free act and deed.

John E. Jones.
Notary Public, Wayne Co., Mich.
My commission expires Dec. 30, 1910.

### XIX. MORTGAGE NOTE.

A Mortgage of even date herewith, executed collateral hereto by John Doe and Mary Doe.

$1,000.00

DETROIT, MICH., March 12, 1909.

Three years after date, at the office of Richard Roe, in the City of Detroit, for value received, we promise to pay to the order of Richard Roe, One Thousand Dollars, with interest thereon from date at the rate of six per cent. per annum, payable semi-annually from the date hereof.

Interest on overdue principal and interest to be paid as in the mortgage collateral hereto provided.

JOHN DOE.
MARY DOE.

### XX. ASSIGNMENT OF MORTGAGE.

KNOW ALL MEN BY THESE PRESENTS, That Richard Roe, of the first part, for and in consideration of the sum of One Dollar lawful money to him in hand paid by George Brown, of the second part, the receipt whereof is hereby acknowledged, has granted, bargained, sold, assigned, transferred and set over, and BY THESE PRESENTS does grant, sell, assign, transfer and set over, unto the said party of the second part, a certain Indenture of Mortgage, bearing date the 12th day of March, one thousand nine hundred and nine, made by John Doe and Mary Doe, his wife, and recorded in the Register's Office of the County of Wayne, State of Michigan, in liber 280 of Mortgages, at page 346, with all and singular the premises therein mentioned and described, together with the note therein also mentioned, and the moneys now due, and the interest that may hereafter grow due thereon: TO HAVE AND TO HOLD the same unto the said party of the second part, his heirs and assigns, FOREVER. And I do hereby authorize and appoint the said party of the second part, my true and lawful attorney, irrevocable in my name, to have, use and take all lawful ways and means for the recovery of the sum or sums of money now due and owing, or hereafter to become due and owing, upon the said note and mortgage; and in case of payment to give sufficient discharge, as fully as I might or could if these presents were not made.

Signed, sealed and delivered, the 1st day of May A. D. 1909.
In Presence of
MARY SMITH.
SAMUEL WHITE.

RICHARD ROE.

STATE OF MICHIGAN }
} ss.
COUNTY OF WAYNE }

On this 1st day of May, A. D. 1909, before me, a Notary Public, in and for the said County, personally appeared Richard Roe, to me known to be





the person described in, and who executed the within instrument, and acknowledged the same to be his free act and deed.

JOHN E. JONES.
Notary Public, Wayne Co., Mich.
My commission expires Dec. 30, 1910.

### XXI. LEASE.

IT IS HEREBY AGREED, Between John Doe, party of the first part, and Richard Roe, party of the second part, as follows:

The said party of the first part, in consideration of the rents and covenants herein specified, does hereby Let and Lease to the said party of the second part, the following described premises, situated and being in the City of Detroit, County of Wayne, and State of Michigan, to-wit:

Store known as 63 Michigan Avenue,

for the term of three years from and after the 1st of May, 1909, on the terms and conditions hereinafter mentioned, to be occupied for clothing and gents' furnishing business.

Provided, That in case any rent shall be due and unpaid, or if default shall be made in any of the covenants herein contained, then it shall be lawful for the said party of the first part, his certain attorney, heirs, representatives and assigns, to re-enter into, re-possess the said premises, and the said party of the second part, and each and every other occupant, to remove and put out.

And the said party of the second part does hereby hire the said premises for the term of three years as above mentioned, and does covenant and promise to pay to the said party of the first part, his representatives and assigns, for rent of said premises for said term the sum of Thirty-six Hundred ($3,600.00) Dollars, at the rate of One Hundred ($100.00) Dollars per month, payable upon the first day of each and every month in advance.

And Also, that said party of the second part will at his own expense, during the continuance of this lease, keep the said premises and every part thereof in as good repair, and at the expiration of the term, yield and deliver up the same in like condition as when taken, reasonable use and wear thereof and damage by the elements excepted.

And the said party of the first part does covenant that the said party of the second part, on paying the aforesaid installments and performing all the covenants aforesaid, shall and may peaceably and quietly have, hold and enjoy the said demised premises for the term aforesaid.

The covenants, conditions and agreements, made and entered into by the several parties hereto, are declared binding on their respective heirs, representatives and assigns.

WITNESS our hands and seals this 1st day of May, 1909.

JOHN DOE.
RICHARD ROE.

XXII. STANDARD FORM INSURANCE POLICY (NEW YORK AND OTHER STATES.)

No. 301654. $1,000.00

THE BUSINESS MEN'S INSURANCE COMPANY.
OF NEW YORK.

IN CONSIDERATION OF THE STIPULATIONS HEREIN NAMED AND OF FIVE AND 50/100.....DOLLARS PREMIUM, Does Insure.....
John Doe.....for the term of three years from the first day of May, 1909, at noon, to the first day of May, 1912, at noon, against all direct loss or damage by fire, except as hereinafter provided,
To an amount not exceeding.....One Thousand.....Dollars, to the following described property while located and contained as described herein, and not elsewhere, to-wit:

The two-story brick house situated at 63 Jones Street, and used as a private dwelling house.

This company shall not be liable beyond the actual cash value of the property at the time any loss or damage occurs, and the loss or damage shall be ascertained or estimated according to such actual cash value, with proper deduction for depreciation however caused, and shall in no event exceed what it would then cost the insured to repair or replace the same with material of like kind and quality; said ascertainment or estimate shall be made by the insured and this company, or if they differ, then by appraisers, as hereinafter provided; and, the amount of loss or damage having been thus determined, the sum for which this company is liable pursuant to this policy shall be payable sixty days after the due notice, ascertainment, estimate, and satisfactory proof of the loss have been received by this company in accordance with the terms of this policy. It shall be optional, however, with this company to take all, or any part, of the articles at such ascertained or appraised value, and also to repair, rebuild or replace the property lost or damaged with other of like kind and quality within a reasonable time on giving notice, within thirty days after the receipt of the proof herein required, of its intention so to do; but there can be no abandonment to this company of the property described.

This entire policy shall be void if the insured has concealed or misrepresented, in writing or otherwise, any material fact or circumstance concerning this insurance or the subject thereof; or if the interest of the insured in the property be not truly stated herein; or in case of any fraud or false swearing by the insured touching any matter relating to this insurance the subject thereof, whether before or after a loss.

This entire policy, unless otherwise provided by agreement indorsed hereon or added thereto, shall be void if the insured now has or shall hereafter make or procure any other contract of insurance, whether valid or not, on property covered in whole or in part by this policy; or if the subject of insurance be a manufacturing establishment and it be operated in whole or in part later than ten o'clock, or if it cease to be operated for more than ten con-





secutive days; or if the hazard be increased by any means within the control or knowledge of the insured; or if mechanics be employed in building, altering, or repairing the within described premises for more than fifteen days at any one time; or if the interest of the insured be other than unconditional and sole ownership; or if the subject of insurance be a building on ground not owned by the insured in fee simple; or if the subject of insurance be personal property and be or become incumbered by a chattel mortgage; or if, with the knowledge of the insured, foreclosure proceedings be commenced or notice given of sale of any property covered by this policy by virtue of any mortgage or trust deed; or if any change, other than by the death of an insured, take place in the interest, title, or possession of the subject of insurance, (except change of occupants without increase of hazard) whether by legal process or judgment or by voluntary act of the insured, or otherwise; or if this policy be assigned before a loss; or if illuminating gas or vapor be generated in the described building (or adjacent thereto) for use therein; or if (any usage or custom of trade or manufacture to the contrary notwithstanding) there be kept, used, or allowed on the above described premises, benzine, benzole, dynamite, ether, fireworks, gasolene, greek fire, gunpowder exceeding twenty-five pounds in quantity, naphtha, nitro-glycerine or other explosives, phosphorus, or petroleum or any of its products of greater inflammability than kerosene oil of the United States standard (which last may be used for lights and kept for sale according to law but in quantities not exceeding five barrels, provided it be drawn and lamps filled by daylight or at a distance not less than ten feet from artificial light); or if a building herein described whether intended for occupancy by owner or tenant, be or become vacant or unoccupied and so remain for ten days.

This company shall not be liable for loss caused directly or indirectly by invasion, insurrection, riot, civil war or commotion, or military or usurped power, or by order of any civil authority; or by theft; or by neglect of the insured to use all reasonble means to save and preserve the property at and after the fire or when the property is endangered by fire in neighboring premises; or (unless fire ensues, and in that event, for the damage by fire only) by explosion of any kind, or lightning; but liability for direct damage by lightning may be assumed by specific agreement hereon.

If a building or any part thereof fall, except as the result of fire, all insurance by this policy on such building or its contents shall immediately cease.

This company shall not be liable for loss to accounts, bills, currency, deeds, evidences of debt, money, notes, or securities; nor, unless liability is specifically assumed hereon, for loss to awnings, bullion, casts, curiosities, drawings, dies, implements, jewels, manuscripts, medals, models, patterns, pictures, scientific apparatus, signs, store or office furniture or fixtures, sculpture, tools, or property held on storage or for repairs; nor, beyond the actual value destroyed by fire, for loss occasioned by ordinance or law regulating construction or repair of buildings, or by interruptions of business, manufacturing processes,

or otherwise; nor for any greater proportion of the value of plate glass, frescoes, and decorations than that which this policy shall bear to the whole insurance on the building described.

If an application, survey, plan, or description of property be referred to in this policy it shall be a part of this contract and a warranty by the insured.

In any matter relating to this insurance no person, unless duly authorized in writing, shall be deemed the agent of this company.

This policy may by a renewal be continued under the original stipulations, in consideration of premium for the renewal term, provided that any increase of hazard must be made known to this company at the time of renewal or this policy shall be void.

This policy shall be cancelled at any time at the request of the insured; or by the company giving five days' notice of such cancellation. If this policy shall be cancelled as hereinbefore provided, or become void or cease, the premium having been actually paid, the unearned portion shall be returned on surrender of this policy or last renewal, this company retaining the customary short rate; except that when this policy is cancelled by this company by giving notice it shall retain only the pro rata premium.

If, with the consent of this company, an interest under this policy shall exist in favor of a mortgage or of any person or corporation having an interest in the subject of insurance other than the interest of the insured as described herein, the conditions hereinbefore contained shall apply in the manner expressed in such provisions and conditions of insurance relating to such interest as shall be written upon, attached, or appended hereto.

If property covered by this policy is so endangered by fire as to require removal to a place of safety, and is so removed, that part of this policy in excess of its proportion of any loss and of the value of property remaining in the original location, shall, for the ensuing five days only, cover the property so removed in the new location; if removed to more than one location, such excess of this policy shall cover therein for such five days in the proportion that the value in any one such new location bears to the value in all such new locations; but this company shall not, in any case of removal, whether to one or more locations, be liable beyond the proportion that the amount hereby insured shall bear to the total insurance on the whole property at the time of fire, whether the same cover in new location or not.

If fire occurs the insured shall give immediate notice of any loss thereby in writing to this company, protect the property from further damage, forthwith separate the damaged and undamaged personal property, put it in the best possible order, make a complete inventory of the same, stating the quantity and cost of each article and the amount claimed thereon; and within sixty days after the fire, unless such time is extended in writing by this company, shall render a statement to this company, signed and sworn to by said insured stating the knowledge and belief of the insured as to the time and origin of the fire; the interest of the insured and of all others in the property; the cash value of each item thereof and the amount of loss thereon; all





incumbrances thereon; all other insurance, whether valid or not, covering any of the said property; and a copy of all descriptions and schedules in all policies; any changes in the title, use, occupation, location, possession, or exposures of said property since the issuing of this policy; by whom and for what purpose any building herein described and the several parts thereof were occupied at the time of fire; and shall furnish, if required, verified plans and specifications of any buildings, fixtures, or machinery destroyed or damaged; and shall also, if required, furnish a certificate of the magistrate or notary public (not interested in the claim as a creditor or otherwise, nor related to the insured) living nearest the place of fire, stating that he examined the circumstances and believes the insured has honestly sustained loss to the amount that such magistrate or notary public shall certify.

The insured, as often as required, shall exhibit to any person designated by this company all that remains of any property herein described, and submit to examinations under oath by any persons named by this company, and subscribe the same; and as often as required, shall produce for examination all books of account, bills, invoices, and other vouchers, or certified copies thereof if originals be lost, at such reasonable place as may be designated by this company or its representative, and shall permit extracts and copies thereof to be made.

In the event of disagreement as to the amount of loss the same shall, as above provided, be ascertained by two competent and disinterested appraisers, the insured and this company each selecting one, and the two so chosen shall first select a competent and disinterested umpire; the appraisers together shall then estimate and appraise the loss, stating separately sound value and damage, and failing to agree, shall submit their differences to the umpire; and the award in writing of any two shall determine the amount of such loss; the parties thereto shall pay the appraiser respectively selected by them and shall bear equally the expenses of the appraisal and umpire.

This company shall not be held to have waived any provision or condition of this policy or any forfeiture thereof by any requirement, act, or proceeding on its part relating to the appraisal or to any examination herein provided for; and the loss shall not become payable until sixty days after the notice, ascertainment, estimate, and satisfactory proof of the loss herein required have been received by this company, including an award by appraisers when appraisal has been required.

This company shall not be liable under this policy for a greater proportion of any loss on the described property, or for loss by and expense of removal from premises endangered by fire, than the amount hereby insured shall bear to the whole insurance, whether valid or not, or by solvent or insolvent insurers, covering such property, and the extent of the application of the insurance under this policy or of the contribution to be made by this company in case of loss, may be provided for by agreement or condition written hereon or attached or appended hereto. Liability for re-insurance shall be as specifically agreed hereon.

If this company shall claim that the fire was caused by the act or neglect of any person or corporation, private or municipal, this company shall, on payment of the loss, be subrogated to the extent of such payment to all right of recovery by the insured for the loss resulting therefrom, and such right shall be assigned to this company by the insured on receiving such payment.

No suit or action on this policy, for the recovery of any claim, shall be sustainable in any court of law or equity until after full compliance by the insured with all the foregoing requirements, nor unless commenced within twelve months next after the fire.

Wherever in this policy the word "insured" occurs, it shall be held to include the legal representative of the insured, and wherever the word "loss" occurs, it shall be deemed the equivalent of "loss or damage."

If this policy be made by a mutual or other company having special regulations lawfully applicable to its organization, membership, policies or contracts of insurance, such regulations shall apply to and form a part of this policy as the same may be written or printed upon, attached, or appended hereto.

This Policy is Made and Accepted Subject to the Foregoing Stipulations and Conditions, together with such other provisions, agreements, or conditions as may be indorsed hereon or added hereto, and no officer, agent, or other representative of this company shall have power to waive any provision or condition of this policy except such as by the terms of this policy may be the subject of agreement indorsed hereon or added hereto, and as to such provision and conditions no officer, agent, or representative shall have such power or be deemed or held to have waived such provisions or conditions unless such waiver, if any, shall be written upon or attached hereto, nor shall any privilege or permission affecting the insurance under this policy exist or be claimed by the insured unless so written or attached.

In Witness Whereof, this company has executed and attested these presents this 1st day of May, 1909.

Samuel White,
Secretary.

Richard Roe,
President.

### XXIII. PROOF OF CLAIM IN BANKRUPTCY.

In the District Court of the United States.

For the Eastern District of Michigan.
In the Matter of John Doe, Bankrupt.

State of Michigan }
County of Wayne } ss.

On the first day of April, A. D. 1909, came Richard Roe, of Detroit, in the County of Wayne, State of Michigan, and made oath, and says that John Doe, the person against whom a petition for adjudication of bankruptcy has been filed, was at and before the filing of said petition, and still is justly and





truly indebted to the said Richard Roe in the sum of three hundred and twenty dollars, ($320.00); that the consideration of said debt is as follows: on an open account; that no part of said debt has been paid; that there are no set-offs or counter claims to the same, and that said Richard Roe has not, nor has any person by his order, or to the knowledge or belief of said deponent, for his use, had or received any manner of security for said debt whatever; and that no note has been received for said account nor has any judgment been rendered thereon.

Richard Roe.

Subscribed and sworn to before me this 1st day of April, A. D. 1909.

John E. Jones.
Notary Public, Wayne Co., Mich.
My commission expires Dec. 30, 1910.

# THE NEGOTIABLE INSTRUMENTS LAW.

A General Act relating to Negotiable Instruments (being an Act to establish a law uniform with the laws of other States on that subject) now in force in thirty-five states and territories, to-wit: Alabama, Arizona, Colorado, Connecticut, District of Columbia, Florida, Hawaii, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

## TITLE I.—NEGOTIABLE INSTRUMENTS IN GENERAL.

### ARTICLE I.

### *Form and Interpretation.*

SECTION 1. *Be it enacted, etc.*, an instrument to be negotiated must conform to the following requirements:

1. It must be in writing and signed by the maker or drawer.
2. Must contain an unconditional promise or order to pay a sum certain in money.
3. Must be payable on demand or at a fixed determinable future time.
4. Must be payable to order or to bearer; and
5. Where the instrument is addressed to a drawee, he must be named or otherwise indicated therein with reasonable certainty.

SEC. 2. The sum payable is a sum certain within the meaning of this Act; although it is to be paid:

1. With interest; or
2. By stated installments; or
3. By stated installments, with a provision that upon default in payment of any installment, or of interest, the whole shall become due; or
4. With exchange, whether at a fixed rate or at the current rate; or
5. With costs of collection or an attorney's fee, in case payment shall not be made at maturity.

SEC. 3. An unqualified order or promise to pay is unconditional within the meaning of this Act, though coupled with:

1. An indication of a particular fund out of which reimbursement is to be made, or a particular account to be debited with the amount; or
2. A statement of the transaction which gives rise to the instrument.

But an order or promise to pay out of a particular fund is not unconditional.





SEC. 4. An instrument is payable at a determinable future time, within the meaning of this Act, which is expressed to be payable:

1. At a fixed rate period after date or sight; or
2. On or before a fixed or determinable future time specified therein; or
3. On or at a fixed period after the occurrence of a specified event, which is certain to happen, though the time of happening be uncertain.

An instrument payable upon a contingency is not negotiable, and the happening of the event does not cure the defect.

SEC. 5. An instrument which contains an order or promise to do any act in addition to the payment of money is not negotiable. But the negotiable character of an instrument otherwise negotiable is not affected by a provision which:

1. Authorizes the sale of collateral securities in case the instrument be not paid at maturity; or
2. Authorizes a confession of judgment if the instrument be not paid at maturity; or
3. Waives the benefit of any law intended for the advantage or protection of the obligor; or
4. Gives the holder an election to require something to be done in lieu of payment of money.

But nothing in this section shall validate any provision or stipulation otherwise illegal.

SEC. 6. The validity and negotiable character of an instrument are not affected by the fact that:

1. It is not dated; or
2. Does not specify the value given, or that any value has been given therefor; or
3. Does not specify the place where it is drawn or the place where it is payable; or
4. Bears a seal; or
5. Designates a particular kind of current money in which payment is to be made.

'But nothing in this section shall alter or repeal any statute requiring in certain cases the nature of the consideration to be stated in the instrument.

SEC. 7. An instrument is payable on demand:

1. Where it is expressed to be payable on demand, or at sight, or on presentation; or
2. In which no time for payment is expressed.

Where an instrument is issued, accepted or indorsed when overdue, it is, as regards the person so issuing, accepting or indorsing it, payable on demand.

SEC. 8. The instrument is payable to order where it is drawn payable to the order of a specified person or to him or his order. It may be drawn payable to the order of:

1. A payee who is not maker, drawer or drawee; or
2. The drawer or maker; or
3. The drawee; or
4. Two or more payees jointly; or
5. One or some of several payees; or
6. The holder of an office for the time being.

Where the instrument is payable to order, the payee must be named or otherwise indicated therein with reasonable certainty.

SEC. 9. The instrument is payable to bearer:

1. When it is expressed to be so payable; or
2. When it is payable to a person named therein or bearer; or
3. When it is payable to the order of a ficititious or non-existing person, and such fact was known to the person making it so payable; or
4. When the name of the payee does not purport to be the name of any person; or
5. When the only or last indorsement is an indorsement in blank.

SEC. 10. The instrument need not follow the language of this act, but any terms are sufficient which clearly indicate an intention to conform to the requirements hereof.

SEC. 11. When the instrument or an acceptance or any indorsement thereon is dated, such date is deemed *prima facie* to be the true date of the making, drawing, acceptance or indorsement, as the case may be.

SEC. 12. The instrument is not invalid for the reason only that it is ante-dated or post-dated, provided this is not done for an illegal or fraudulent purpose. The person to whom an instrument so dated is delivered acquires the title thereto as of the date of delivery.

SEC. 13. When an instrument expressed to be payable at a fixed period after date is issued undated, or where the acceptance of an instrument payable at a fixed period after sight is undated, any holder may insert therein the true date of issue or acceptance, and the instrument shall be payable accordingly. The insertion of a wrong date does not avoid the instrument in the hands of a subsequent holder in due course; but as to him, the date so inserted is to be regarded as the true date.

SEC. 14. Where the instrument is wanting in any material particular, the person is possession thereof has a *prima facie* authority to complete it by filling up the blanks therein. And a signature on a blank paper delivered by the person making the signature in order that the paper may be converted into a negotiable instrument operates as a *prima facie* authority to fill up as such for any amount. In order, however, that any such instrument when completed may be enforced against any person who became a party thereto prior to its completion, it must be filled up strictly in accordance with the authority given and within a reasonable time. But if any such instrument, after completion, is negotiated to a holder in due course it is valid and effectual for all purposes in his hands, and he may enforce it as if it had been filled up strictly in accordance with the authority given and within a reasonable time.





SEC. 15. Where an incomplete instrument has not been delivered it will not, if completed and negotiated, without authority, be a valid contract in the hands of any holder, as against any person whose signature was placed thereon before delivery.

SEC. 16. Every contract on a negotiable instrument is incomplete and revokable until delivery of the instrument for the purpose of giving effect thereto. As between immediate parties, and as regards a remote party other than a holder in due course, the delivery, in order to be effectual, must be made either by or under the authority of the party making, drawing, accepting or indorsing, as the case may be; and in such case the delivery may be shown to have been conditional or for a special purpose only, and not for the purpose of transferring the property in the instrument. But where the instrument is in the hands of a holder in due course, a valid delivery thereof by all parties prior to him so as to make them liable to him, is conclusively presumed. And where the instrument is no longer in the possession of a party whose signature appears thereon, a valid and intentional delivery by him is presumed until the contrary is proved.

SEC. 17. Where the language of the instrument is ambiguous, or there are omissions therein, the following rules of construction apply:

1. Where the sum payable is expressed in words and also in figures and there is a discrepancy between the two, the sum denoted by the words is the sum payable; but if the words are ambiguous or uncertain, references may be had to the figures to fix the amount.
2. Where the instrument provides for the payment of interest, without specifying the date from which interest is to run, the interest runs from the date of the instrument, and if the instrument is undated, from the issue thereof.
3. Where the instrument is not dated, it will be considered to be dated as of the time it was issued.
4. Where there is conflict between the written and printed provisions of the instrument, the written provisions prevail.
5. Where the instrument is so ambiguous that there is doubt whether it is a bill or a note, the holder may treat it as either, at his election.
6. Where a signature is so placed upon the instrument that it is not clear in what capacity the person making the same intended to sign, he is to be deemed an endorser.
7. Where an instrument containing the words "I promise to pay," is signed by two or more persons, they are deemed to be jointly and severally liable thereon.

SEC. 18. No person is liable on the instrument whose signature does not appear thereon, except as herein otherwise provided. But one who signs in a trade or assumed name will be liable to the same extent as if he had signed in his own name.

SEC. 19. The signature of any party may be made by a duly authorized agent. No particular form of appointment is necessary for this purpose; and the authority of the agent may be established as in other cases of agency.

SEC. 20. Where the instrument contains, or a person adds to his signature, words indicating that he signs for or on behalf of a principal, or in a representative capacity, he is not liable on the instrument if he was duly authorized; but the mere addition of words describing him as agent, or as filling a representative character without disclosing his principal, does not exempt him from personal liability.

SEC. 21. A signature by "procuration" operates as notice that the agent has but limited authority to sign, and the principal is bound only in case the agent in so signing acted within the actual limits of his authority.

SEC. 22. The indorsement or assignment of the instrument by a corporation or by an infant passes the property therein, notwithstanding that from want of capacity the corporation or infant may incur no liability thereon.

SEC. 23. Where a signature is forged or made without the authority of the person whose signature it purports to be, it is wholly inoperative, and no right to retain the instrument, or to give a discharge therefor, or to enforce payment thereof against any party thereto, can be acquired through or under such signature, unless the party against whom it is sought to enforce such right is precluded from setting up the forgery or want of authority.

### ARTICLE II.

### *Consideration.*

SEC. 24. Every negotiable instrument is deemed *prima facie* to have been issued for a valuable consideration, and every person whose signature appears thereon to have become a party thereto for value.

SEC. 25. Value is any consideration sufficient to support a simple contract. An antecedent or pre-existing debt constitutes value, and is deemed such, whether the instrument is payable on demand or at a future time.

SEC. 26. Where value has at any time been given for the instrument, the holder is deemed a holder for value in respect to all parties who became such, prior to that time.

SEC. 27. Where the holder has a lien on the instrument, arising either from contract or by implication of law, he is deemed a holder for value to the extent of his lien.

SEC. 28. Absence or failure of consideration is a matter of defense as against any person not a holder in due course, and partial failure of consideration is a defense *pro tanto*, whether the failure is an ascertained and liquidated amount or otherwise.

SEC. 29. An accommodation party is one who has signed the instrument as maker, drawer, acceptor, or indorser, without receiving value therefor, and for the purpose of lending his name to some other person. Such a person is liable on the instrument to a holder for value, notwithstanding such holder at the time of taking the instrument knew him to be only an accommodation party.

### ARTICLE III.

### *Negotiation.*

SEC. 30. An instrument is negotiated when it is transferred from one





person to another in such a manner as to constitute the transferee the holder thereof. If payable to bearer, it is negotiated by delivery; if payable to order, it is negotiated by the endorsement of the holder, completed by delivery.

SEC. 31. The indorsement must be written on the instrument itself or upon a paper attached thereto. The signature of the indorser, without additional words, is a sufficient indorsement.

SEC. 32. The indorsement must be an indorsement of the entire instrument. An indorsement which purports to transfer to the indorsee a part only of the amount payable, or which purports to transfer the instrument to two or more indorsees severally, does not operate as a negotiation of the instrument. But where the instrument has been paid in part, it may be indorsed as to the residue.

SEC. 33. An indorsement may be either special or in blank; and it may also be either restrictive or qualified, or conditional.

SEC. 34. A special indorsement specifies the person to whom or to whose order the instrument is to be payable; and the indorsement of such indorsee is necessary to the further negotiation of the instrument. An indorsement in blank specifies no indorsee, and an instrument so indorsed is payable to bearer, and may be negotiated by delivery.

SEC. 35. The holder may convert a blank indorsement into a special indorsement by writing over the signature of the indorser in blank any contract consistent with the character of the indorsement.

SEC. 36. An indorsement is restrictive which either:

1. Prohibits the further negotiation of the instrument; or
2. Constitutes the indorsee the agent of the indorser; or
3. Vests the title in the indorsee in trust for or to the use of some other person. But the mere absence of words implying power to negotiate does not make an indorsement restrictive.

SEC. 37. A restrictive indorsement confers upon the indorsee the right:

1. To receive payment of the instrument.
2. To bring any action thereon that the indorser could bring.
3. To transfer his rights as such indorsee, where the form of the indorsement authorizes him to do so.

But all subsequent indorsees acquire only the title of the first indorsee under the restrictive indorsement.

SEC. 38. A qualified indorsement constitutes the indorser a mere assignor of the title to the instrument. It may be made by adding to the indorser's signature the words "without recourse" or any words of similar import. Such an indorsement does not impair the negotiable character of the instrument.

SEC. 39. Where an indorsement is conditional, a party required to pay the instrument may disregard the condition, and make payment to the indorsee or his transferee, whether the condition has been fulfilled or not. But any person to whom an instrument so indorsed is negotiated, will hold the same, or the proceeds thereof, subject to the rights of the person indorsing conditionally.

SEC. 40. Where an instrument, payable to bearer, is indorsed specially, it may nevertheless be further negotiated by delivery; but the person indorsing

specially is liable as indorser to only such holders as make title through his indorsement.

SEC. 41. Where an instrument is payable to the order of two or more payees or indorsees who are not partners, all must indorse, unless the one indorsing has authority to indorse for the others.

SEC. 42. Where an instrument is drawn or indorsed to a person, as "Cashier" or other fiscal officer of a bank or corporation, it is deemed *prima facie* to be payable to the bank or corporation of which he is such officer; and may be negotiated by either the indorsement of the bank or corporation, or the indorsement of the officer.

SEC. 43. Where the name of a payee or indorsee is wrongly designated or misspelled, he may indorse the instrument as therein described, adding, if he think fit, his proper signature.

SEC. 44. Where any person is under obligation to indorse in a representative capacity, he may indorse in such terms as to negative personal liability.

SEC. 45. Except where an indorsement bears date after the maturity of the instrument, every negotiation is deemed *prima facie* to have been effected before the instrument was overdue.

SEC. 46. Except where the contrary appears, every indorsement is presumed *prima facie* to have been made at the place where the instrument is dated.

SEC. 47. An instrument negotiable in its origin continues to be negotiable until it has been restrictively indorsed or discharged by payment or otherwise.

SEC. 48. The holder may at any time strike out any indorsement which is not necessary to his title. The indorser whose indorsement is struck out, and all indorsers subsequent to him, are thereby relieved from liability on the instrument.

SEC. 49. Where the holder of an instrument payable to his order transfers it for value without indorsing it, the transfer vests in the transferee such title as the transferer had therein, and the transferee acquires, in addition, the right to have the indorsement of the transferer. But for the purpose of determining whether the transferee is a holder in due course, the negotiation takes effect as of the time when the indorsement is actually made.

SEC. 50. Where an instrument is negotiated back to a prior party, such party may, subject to the provisions of this Act, re-issue and further negotiate the same—but he is not entitled to enforce payment thereof against any intervening party to whom he was personally liable.

### ARTICLE IV.

### *Rights of the Holder.*

SEC. 51. The holder of a negotiable instrument may sue thereon in his own name and payment to him in due course discharges the instrument.

SEC. 52. A holder in due course is a holder who has taken the instrument under the following conditions:

1. That it is complete and regular upon its face.





2. That he became the holder of it before it was overdue, and without notice that it had been previously dishonored, if such was the fact.
3. That he took it in good faith and for value.
4. That at the time it was negotiated to him he had no notice of any infirmity in the instrument or defect in the title of the person negotiating it.

SEC. 53. Where an instrument payable on demand is negotiated an unreasonable length of time after its issue, the holder is not deemed in due course.

SEC. 54. Where the transferee receives notice of any infirmity in the instrument or defect in the title of the person negotiating the same before he has paid the full amount agreed to be paid therefor, he will be deemed a holder in due course only to the extent of the amount theretofore paid by him.

SEC. 55. The title of a person who negotiates an instrument is defective within the meaning of this Act when he obtained the instrument, or any signature thereto, by fraud, duress, or force and fear, or other unlawful means, or for an illegal consideration, or when he negotiates it in breach of faith, or under such circumstances as amount to a fraud.

SEC. 56. To constitute notice of an infirmity in the instrument or defect in the title of the person negotiating the same, the person to whom it is negotiated must have had actual knowledge of the infirmity or defect, or knowledge of such facts that his action in taking the instrument amounted to bad faith.

SEC. 57. A holder in due course holds the instrument free from any defect of title of prior parties, and free from defenses available to prior parties among themselves, and may enforce payment of the instrument for the full amount thereof against all parties liable thereon.

SEC. 58. In the hands of any holder other than a holder in due course, a negotiable instrument is subject to the same defenses as if it were non-negotiable. But a holder who derives his title through a holder in due course, and who is not himself a party to any fraud or illegality affecting the instrument, has all the rights of such former holder in respect of all parties prior to the latter.

SEC. 59. Every holder is deemed *prima facie* to be a holder in due course; but when it is shown that the title of any person who has negotiated the instrument was defective, the burden is on the holder to prove that he or some person under whom he claims acquired the title as a holder in due course. But the last mentioned rule does not apply in favor of a party who became bound on the instrument prior to the acquisition of such defective title.

### ARTICLE V.

### *Liabilities of Parties.*

SEC. 60. The maker of a negotiable instrument by making it engages that he will pay it according to its tenor, and admits the existence of the payee and his then capacity to indorse.

SEC. 61. The drawer by drawing the instrument admits the existence of

the payee and his then capacity to indorse, and engages that on due presentment the instrument will be accepted or paid, or both, according to its tenor, and that if it be dishonored, and the necessary proceedings on dishonor be duly taken, he will pay the amount thereof to the holder, or to any subsequent indorser who may be compelled to pay it. But the drawer may insert in the instrument an express stipulation negativing or limiting his own liability to the holder.

SEC. 62. The acceptor by accepting the instrument engages that he will pay it according to the tenor of his acceptance, and admits:

1. The existence of the drawer, the genuineness of his signature, and his capacity and authority to draw the instrument; and
2. The existence of the payee and his then capacity to indorse.

SEC. 63. A person placing his signature upon an instrument otherwise than as maker, drawer or acceptor is deemed to be an indorser, unless he clearly indicates by appropriate words his intention to be bound in some other capacity.

SEC. 64. Where a person, not otherwise a party to an instrument, places thereon his signature in blank before delivery, he is liable as indorser in accordance with the following rules:

1. If the instrument is payable to the order of a third person, he is liable to the payee and to all subsequent parties.
2. If the instrument is payable to the order of the maker or drawer, or is payable to bearer, he is liable to all parties subsequent to the maker or drawer.
3. If he signs for the accommodation of the payee, he is liable to all parties subsequent to the payee.

SEC. 65. Every person negotiating an instrument by delivery or by a qualified indorsement, warrants:

1. That the instrument is genuine and in all respects what it purports to be.
2. That he has a good title to it.
3. That all prior parties had capacity to contract.
4. That he has no knowledge of any fact which would impair the validity of the instrument or render it valueless.

But when the negotiation is by delivery only, the warranty extends in favor of no holder other than the immediate transferee.

The provisions of subdivision three of this section do not apply to persons negotiating public or corporate securities, other than bills and notes.

SEC. 66. Every indorser who indorses without qualification, warrants to all subsequent holders in due course:

1. The matters and things mentioned in subdivisions one, two and three of the next preceding section; and
2. That the instrument is at the time of his indorsement valid and subsisting.





And, in addition, he engages that on due presentment, it shall be accepted or paid, or both, as the case may be, according to its tenor, and that if it be dishonored and the necessary proceedings on dishonor be duly taken, he will pay the amount thereof to the holder, or to any subsequent indorser who may be compelled to pay it.

SEC. 67. Where a person places his indorsement on an instrument negotiable by delivery he incurs all the liabilities of an indorser.

SEC. 68. As respects one another, indorsers are liable *prima facie* in the order in which they indorse; but evidence is admissible to show that as between or among themselves they have agreed otherwise. Joint payees or joint indorsees who indorse are deemed to indorse jointly and severally.

SEC. 69. Where a broker or other agent negotiates an instrument without indorsement, he incurs all the liabilities prescribed by Section sixty-five of this Act, unless he discloses the name of his principal, and the fact that he is acting only as agent.

### ARTICLE VI.

### *Presentment for Payment.*

SEC. 70. Presentment for payment is not necessary in order to charge the person primarily liable on the instrument; but if the instrument is, by its terms, payable at a special place, and he is able and willing to pay it there at maturity, such ability and willingness are equivalent to a tender of payment upon his part. But except as herein otherwise provided, presentment for payment is necessary in order to charge the drawer and indorsers.

SEC. 71. Where the instrument is not payable on demand, presentment must be made on the day it falls due. Where it is payable on demand, presentment must be made within a reasonable time after its issue, except that in the case of a bill of exchange, presentment for payment will be sufficient if made within a reasonable time after the last negotiation thereof.

SEC. 72. Presentment for payment, to be sufficient, must be made:

1. By the holder, or by some person authorized to receive payment on his behalf.
2. At a reasonable hour on a business day.
3. At a proper place as herein defined.
4. To the person primarily liable on the instrument, or if he is absent or inaccessible, to any person found at the place where the presentment is made.

SEC. 73. Presentment for payment is made at the proper place:

1. Where a place of payment is specified in the instrument and it is there presented.
2. Where no place of payment is specified but the address of the person to make payment is given in the instrument and it is there presented.

3. Where no place of payment is specified and no address is given and the instrument is presented at the usual place of business or residence of the person to make payment.
4. In any other case, if presented to the person to make payment wherever he can be found, or if presented at his last known place of business or residence.

SEC. 74. The instrument must be exhibited to the person from whom payment is demanded, and when it is paid must be delivered up to the party paying it.

SEC. 75. Where the instrument is payable at a bank, presentment for payment must be made during banking hours, unless the person to make payment has no funds there to meet it at any time during the day, in which case presentment at any hour before the bank is closed on that day is sufficient.

SEC. 76. Where the person primarily liable on the instrument is dead, and no place of payment is specified, presentment for payment must be made to his presonal representative, if such there be, and if with the exercise of reasonable diligence he can be found.

SEC. 77. Where the persons primarily liable on the instrument are liable as partners, and no place of payment is specified, presentment for payment may be made to any one of them, even though there has been a dissolution of the firm.

SEC. 78. Where there are several persons, not partners, primarily liable on the instrument, and no place of payment is specified, presentment must be made to them all.

SEC. 79. Presentment for payment is not required in order to charge the drawer where he has no right to expect or require that the drawee or acceptor will pay the instrument.

SEC. 80. Presentment for payment is not required in order to charge an indorser where the instrument was made or accepted for his accomodation, and he has no reason to expect that the instrument will be paid if presented.

SEC. 81. Delay in making presentment for payment is excused when the delay is caused by circumstances beyond the control of the holder, and not imputable to his default, misconduct or negligence. When the cause of delay ceases to operate, presentment must be made with reasonable diligence.

SEC. 82. Presentment for payment is dispensed with:

1. Where after the exercise of reasonable diligence presentment as required by this Act cannot be made.
2. Where the drawee is a fictitious person.
3. By waiver of presentment, express or implied.

SEC. 83. The instrument is dishonored by non-payment when:

1. It is duly presented for payment and payment is refused or cannot be obtained; or
2. Presentment is excused and the instrument is overdue and unpaid.

SEC. 84. Subject to the provisions of this Act, when the instrument is





dishonored by non-payment, an immediate right of recourse to all parties secondarily liable thereon, accrues to the holder.

SEC. 85. Every negotiable instrument is payable at the time fixed therein without grace. When the day of maturity falls upon Sunday, or a holiday, the instrument is payable on the next succeeding business day. Instruments falling due on Saturday are to be presented for payment on the next succeeding business day, except that instruments payable on demand may, at the option of the holder, be presented for payment before 12:00 o'clock noon on Saturday when that entire day is not a holiday.

SEC. 86. Where the instrument is payable at a fixed period after date, after sight, or after the happening of a specified event, the time of payment is determined by excluding the day from which the time is to begin to run, and by including the date of payment.

SEC. 87. Where the instrument is made payable at a bank it is equivalent to an order to the bank to pay the same for the account of the principal debtor thereon.

SEC. 88. Payment is made in due course when it is made at or after maturity of the instrument to the holder thereof in good faith and without notice that his title is defective.

ARTICLE VII.

*Notice of Dishonor.*

SEC. 89. Except as herein otherwise provided, when a negotiable instrument has been dishonored by non-acceptance or non-payment, notice of dishonor must be given to the drawer and to each indorser, and any drawer or indorser to whom such notice is not given is discharged.

SEC. 90. The notice may be given by or on behalf of the holder, or by or on behalf of any party to the instrument who might be compelled to pay it to the holder, and who, upon taking it up, would have a right to reimbursement from the party to whom the notice is given.

SEC. 91. Notice of dishonor may be given by an agent either in his own name or in the name of any party entitled to give notice, whether that party be his principal or not.

SEC. 92. Where notice is given by or on behalf of the holder, it inures for the benefit of all subsequent holders and all prior parties who have a right of recourse against the party to whom it is given.

SEC. 93. Where notice is given by or on behalf of a party entitled to give notice, it insures for the benefit of the holder and all parties subsequent to the party to whom notice is given.

SEC. 94. Where the instrument has been dishonored in the hands of an agent, he may either himself give notice to the parties liable thereon, or he may give notice to his principal. If he gives notice to his principal, he must do so within the same time as if he were the holder, and the principal, upon the receipt of such notice, has himself the same time for giving notice as if the agent had been an independent holder.

SEC. 95. A written notice need not be signed, and an insufficient written notice may be supplemented and validated by verbal communication. A mis-

description of the instrument does not vitiate the notice, unless the party to whom the notice is given is in fact misled thereby.

Sec. 96. The notice may be in writing or merely oral and may be given in any terms which sufficiently identify the instrument and indicate that it has been dishonored by non-acceptance or non-payment. It may in all cases be given by delivering it personally or through the mails.

Sec. 97. Notice of dishonor may be given either to the party himself or to his agent in that behalf.

Sec. 98. Where any party is dead, and his death is known to the party giving notice, the notice must be given to a personal representative, if there be one, and if with reasonable diligence, he can be found. If there be no personal representative, notice may be sent to the last residence or last place of business of the deceased.

Sec. 99. Where the parties to be notified are partners, notice to any one partner is notice to the firm, even though there has been a dissolution.

Sec. 100. Notice to joint parties who are not partners must be given to each of them, unless one of them has authority to receive such notice for the others.

Sec. 101. Where a party has been adjudged a bankrupt or an insolvent, or has made an assignment for the benefit of creditors, notice may be given either to the party himself or to his trustee or assignee.

Sec. 102. Notice may be given as soon as the instrument is dishonored, and unless delay is excused as hereinafter provided, must be given within the times fixed by this act.

Sec. 103. Where the person giving and the person to receive notice reside in same place, notice must be given within the following times:

1. If given at the place of business of the person to receive notice it must be given before the close of business hours on the day following.
2. If given at his residence, it must be given before the usual hours of rest on the day following.
3. If sent by mail, it must be deposited in the post-office in time to reach him in usual course on the day following.

Sec. 104. Where the person giving and the person to receive notice reside in different places, the notice must be given within the following times:

1. If sent by mail, it must be deposited in the post-office in time to go by mail the day following the day of dishonor, or if there be no mail at a convenient hour on that day, by the next mail thereafter.
2. If given otherwise than through the post-office, then within the time that notice would have been received in due course of mail, if it had been deposited in the postoffice within the time specified in the last subdivision.

Sec. 105. Where notice of dishonor is duly addressed and deposited in the post-office, the sender is deemed to have given due notice, notwithstanding any miscarriage in the mails.

Sec. 106. Notice is deemed to have been deposited in the postoffice when





deposited in any branch post-office or in any letter box under the control of the post-office department.

Sec. 107. Where a party receives notice of dishonor, he has, after the receipt of such notice, the same time for giving notice to antecedent parties that the holder has after the dishonor.

Sec. 108. Where a party has added an address to his signature, notice of dishonor must be sent to that address; but if he has not given such address, then the notice must be sent as follows:

1. Either to the post-office nearest to his place of residence, or to the postoffice where he is accustomed to receive his letters; or
2. If he lives in one place, and have his place of business in another, notice may be sent to either place; or
3. If he is sojourning in another place, notice may be sent to the place where he is sojourning.

But where the notice is actually received by the party within the time specified in this Act, it will be sufficient, though not sent in accordance with the requirements of this section.

Sec. 109. Notice of dishonor may be waived, either before the time of giving notice has arrived, or after the omission to give due notice, and the waiver may be express or implied.

Sec. 110. Where the waiver is embodied in the instrument itself, it is binding upon all parties; but where it is written above the signature of an indorser, it binds him only.

Sec. 111. A waiver of protest, whether in the case of a foreign bill of exchange or other negotiable instrument, is deemed to be a waiver not only of a formal protest, but also of presentment and notice of dishonor.

Sec. 112. Notice of dishonor is dispensed with when, after the exercise of reasonable diligence, it cannot be given to or does not reach the parties sought to be charged.

Sec. 113. Delay in giving notice of dishonor is excused when the delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct or negligence. When the cause of delay ceases to operate, notice must be given with reasonable diligence.

Sec. 114. Notice of dishonor is not required to be given to the drawer in either of the following cases:

1. Where the drawer and the drawee are the same person;
2. Where the drawee is a fictitious person or a person not having capacity to contract;
3. Where the drawer is the person to whom the instrument is presented for payment;
4. Where the drawer has no right to expect or require that the drawee or acceptor will honor the instrument.
5. Where the drawer has countermanded payment.

Sec. 115. Notice of dishonor is not required to be given to an indorser in either of the following cases:

1. Where the drawee is a fictitious person or a person not having capacity to contract and the indorser was aware of the fact at the time he indorsed the instrument;
2. Where the indorser is the person to whom the instrument is presented for payment.
3. Where the instrument was made or accepted for his accommodation.

SEC. 116. Where due notice of dishonor by non-acceptance has been given, notice of a subsequent dishonor by non-payment is not necessary, unless in the meantime the instrument has been accepted.

SEC. 117. An omission to give notice of dishonor by non-acceptance does not prejudice the rights of a holder in due course subsequent to the omission.

SEC. 118. Where any negotiable instrument has been dishonored it may be protested for non-acceptance or non-payment as the case may be; but protest is not required except in the case of foreign bills of exchange.

ARTICLE VIII.

*Discharge of Negotiable Instruments.*

SEC. 119. A negotiable instrument is discharged:

1. By payment in due course by or on behalf of the principal debtor.
2. By payment in due course by the party accommodated, where the instrument is made or accepted for accommodation.
3. By the intentional cancellation thereof by the holder.
4. By any other act which will discharge a simple contract for the payment of money.
5. When the principal debtor becomes the holder of the instrument at or after maturity in his own right.

SEC. 120. A person secondarily liable on the instrument is discharged:

1. By any act which discharges the instrument.
2. By the intentional cancellation of his signature by the holder.
3. By the discharge of a prior party.
4. By a valid tender of payment made by a prior party.
5. By a release of the principal debtor, unless the holder's right of recourse against the party secondarily liable is expressly reserved.
6. By any agreement binding upon the holder to extend the time of payment, or to postpone the holder's right to enforce the instrument, unless made with the assent of the party secondarily liable, or unless the right of recourse against such party is expressly reserved.

SEC. 121. Where the instrument is paid by a party secondarily liable thereon it is not discharged; but the party so paying it is remitted to his former rights as regards all prior parties, and he may strike out his own and all subsequent indorsements, and again negotiate the instrument, except:

1. Where it is payable to the order of a third person, and has been paid by the drawer; and
2. Where it was made or accepted for accommodation, and has been paid by the party accommodated.

SEC. 122. The holder may expressly renounce his rights against any party





to the instrument before, at, or after its maturity. An absolute and unconditional renunciation of his rights against the principal debtor made at or before the maturity of the instrument discharges the instrument. But a renunciation does not affect the rights of a holder in due course without notice. A renunciation must be in writing, unless the instrument is delivered up to the person primarily liable thereon.

SEC. 123. A cancellation made unintentionally, or under a mistake, or without the authority of the holder, is inoperative; but where an instrument or any signature thereon appears to have been cancelled, the burden of proof lies on the party who alleges that the cancellation was made unintentionally, or under a mistake or without authority.

SEC. 124. Where a negotiable instrument is materially altered without the assent of all parties liable thereon, it is avoided, except as against a party who has himself made, authorized or assented to the alteration and subsequent indorsers.

But when an instrument has been materially altered and is in the hands of a holder in due course, not a party to the alteration, he may enforce payment thereof according to its original tenor.

SEC. 125. Any alteration which changes:

1. The date.
2. The sum payable, either for principal or interest.
3. The time or place of payment.
4. The number or the relations of the parties.
5. The medium or currency in which payment is to be made.

Or which adds a place of payment where no place of payment is specified, or any other change or addition which alters the effect of the instrument in any respect, is a material alteration.

TITLE II.—BILLS OF EXCHANGE.

ARTICLE I.

*Form and Interpretation.*

SEC. 126. A bill of exchange is an unconditional order in writing addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand, or at a fixed or determinable future time, a sum certain in money to order or to bearer.

SEC. 127. A bill of itself does not operate as an assignment of the funds in the hands of the drawee available for the payment thereof, and the drawee is not liable on the bill unless and until he accepts the same.

SEC. 128. A bill may be addressed to two or more drawees jointly, whether they are partners or not; but not to two or more drawees in the alternative or in succession.

SEC. 129. An inland bill of exchange is a bill which is, or on its face purports to be, both drawn and payable within this state. Any other bill is a foreign bill. Unless the contrary appears on the face of the bill, the holder may treat it as an inland bill.

SEC. 130. Where in a bill, drawer and drawee are the same person, or

where the drawee is a fictitious person, or a person not having capacity to contract, the holder may treat the instrument at his option, either as a bill of exchange or a promissory note.

SEC 131. The drawer of a bill and any indorser may insert thereon the name of a person to whom the holder may resort in case of need, that is to say, in case the bill is dishonored by non-acceptance or non-payment. Such person is called the referee in case of need. It is in the option of the holder to resort to the referee in case of need or not, as he may see fit.

### ARTICLE II.

### *Acceptance.*

SEC. 132. The acceptance of a bill is the signification by the drawee of his assent to the order of the drawer. The acceptance must be in writing and signed by the drawee. It must not express that the drawee will perform his promise by any other means than the payment of money.

SEC. 133. The holder of a bill presenting the same for acceptance may require that the acceptance be written on the bill, and if such request is refused, may treat the bill as dishonored.

SEC. 134. Where an acceptance is written on a paper other than the bill itself, it does not bind the acceptor except in favor of a person to whom it is shown and who, on the faith thereof, receives the bill for value.

SEC. 135. An unconditional promise in writing to accept a bill before it is drawn is deemed an actual acceptance in favor of every person who, upon the faith thereof, receives the bill for value.

SEC. 136. The drawee is allowed twenty-four hours after presentment in which to decide whether or not he will accept the bill; but the acceptance, if given, dates as of the day of presentation.

SEC. 137. Where a drawee to whom a bill is delivered for acceptance destroys the same, or refuses within twenty-four hours after such delivery or within such other period as the holder may allow, to return the bill accepted or non-accepted to the holder, he will be deemed to have accepted the same.

SEC. 138. A bill may be accepted before it has been signed by the drawer, or while otherwise incomplete, or when it is overdue, or after it has been dishonored by a previous refusal to accept, or by non-payment. But when a bill payable after sight is dishonored by non-acceptance and the drawee subsequently accepts it, the holder, in the absence of any different agreement, is entitled to have the bill accepted as of the date of the first presentment.

SEC. 139. An acceptance is either general or qualified. A general acceptance assents without qualification to the order of the drawer. A qualified acceptance in express terms varies the effect of the bill as drawn.

SEC. 140. An acceptance to pay at a particular place is a general acceptance unless it expressly states that the bill is to be paid there only, and not elsewhere.

SEC. 141. An acceptance is qualified, which is:





1. Conditional; that is to say, which makes payment by the acceptor dependent on the fulfillment of a condition therein stated.
2. Partial; that is to say, an acceptance to pay part only of the amount for which the bill is drawn.
3. Local; that is to say, an acceptance to pay only at a particular place.
4. Qualified as to time.
5. The acceptance of some one or more of the drawees, but not of all.

SEC. 142. The holder may refuse to take a qualified acceptance, and if he does not obtain an unqualified acceptance, he may treat the bill as dishonored by non-acceptance. Where a qualified acceptance is taken, the drawer and indorsers are discharged from liability on the bill, unless they have expressly or impliedly authorized the holder to take a qualified acceptance, or subsequently assent thereto. When the drawer or an indorser receives notice of a qualified acceptance, he must within a reasonable time express his dissent to the holder, or he will be deemed to have assented thereto.

### ARTICLE III.

### *Presentment for Acceptance.*

SEC. 143. Presentment for acceptance must be made:

1. Where the bill is payable after sight, or in any other case where presentment for acceptance is necessary in order to fix the maturity of the instrument; or
2. Where the bill expressly stipulates that it shall be presented for acceptance; or
3. Where the bill is drawn payable elsewhere than at the residence or place of business of the drawee.

In no other case is presentment for acceptance necessary in order to render any party to the bill liable.

SEC. 144. Except as herein otherwise provided, the holder of a bill which is required by the next preceding section to be presented for acceptance must either present it for acceptance or negotiate it within a reasonable time. If he fail to do so, the drawer and all indorsers are discharged.

SEC. 145. Presentment for acceptance must be made by or on behalf of the holder at a reasonable hour, on a business day and before the bill is overdue, to the drawee or some person authorized to accept or refuse acceptance on his behalf; and:

1. Where a bill is addressed to two or more drawees who are not partners, presentment must be made to them all, unless one has authority to accept or refuse acceptance for all, in which case presentment may be made to him only.
2. Where the drawee is dead, presentment may be made to his personal representative.
3. Where the drawee has been adjudged a bankrupt or an insolvent, or has made an assignment for the benefit of creditors, presentment may be made to him or to his trustee or assignee.

SEC. 146. A bill may be presented for acceptance on any day on which negotiable instruments may be presented for payment under the provisions of sections seventy-two and eigthy-five of this Act. When Saturday is not otherwise a holiday, presentment for acceptance may be made before 12 o'clock noon on that day.

SEC. 147. Where the holder of a bill drawn payable elsewhere than at the place of business or the residence of the drawee has not time with the exercise of reasonable diligence to present the bill for acceptance before presenting it for payment on the day that it falls due, the delay caused by presenting the bill for acceptance before presenting it for payment is excused and does not discharge the drawers and indorsers.

SEC. 148. Presentment for acceptance is excused and a bill may be treated as dishonored by non-acceptance, in either of the following cases:

1. Where the drawee is dead, or has absconded, or is a fictitious person or a person not having capacity to contract by bill.
2. Where after the exercise of reasonable diligence, presentment cannot be made.
3. Where although presentment has been irregular, acceptance has been refused on some other ground.

SEC. 149. A bill is dishonored by non-acceptance:

1. When it is duly presented for acceptance and such an acceptance as is prescribed by this Act is refused or can not be obtained; or
2. When a presentment for acceptance is excused and the bill is not accepted.

SEC. 150. Where a bill is duly presented for acceptance and is not accepted within the prescribed time, the person presenting it must treat the bill as dishonored by non-acceptance or he loses the right of recourse against the drawer and indorsers.

SEC. 151. When a bill is dishonored by non-acceptance, an immediate right of recourse against the drawers and indorsers accrues to the holder and no presentment for payment is necessary.

### ARTICLE IV.

### *Protest.*

SEC. 152. Where a foreign bill appearing on its face to be such is dishonored by non-acceptance, it must be duly protested for non-acceptance, and where such a bill which has not previously been dishonored by non-acceptance is dishonored by non-payment, it must be duly protested for non-payment. If it is not so protested, the drawer and indorsers are discharged. Where a bill does not appear on its face to be a foreign bill, protest thereof, in case of dishonor, is unnecessary.

SEC. 153. The protest must be annexed to the bill, or must contain a copy thereof, and must be under the hand and seal of the notary making it, and must specify:





1. The time and place of presentment.
2. The fact that presentment was made and the manner thereof.
3. The cause or reason for protesting the bill.
4. The demand made and the answer given, if any, or the fact that the drawee or acceptor could not be found.

SEC. 154. Protest may be made by:

1. A notary public; or
2. By any respectable resident of the place where the bill is dishonored, in the presence of two or more credible witnesses.

SEC. 155. When a bill is protested, such protest must be made on the day of its dishonor, unless delay is excused as herein provided. When a bill has been duly noted, the protest may be subsequently extended as of the date of the noting.

SEC. 156. A bill must be protested at the place where it is dishonored, except that when a bill drawn payable at the place of business or residence of some person other than the drawee, has been dishonored by non-acceptance, it must be protested for non-payment at the place where it is expressed to be payable; and no further presentment for payment to, or demand on, the drawee is necessary.

SEC. 157. A bill which has been protested for non-acceptance may be subsequently protested for non-payment.

SEC. 158. Where the acceptor has been adjudged a bankrupt or an insolvent or has made an assignment for the benefit of creditors, before the bill matures, the holder may cause the bill to be protested for better security against the drawer and indorsers.

SEC. 159. Protest is dispensed with by any circumstances which would dispense with notice of dishonor. Delay in noting or protesting is excused when delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct or negligence. When the cause of delay ceases to operate, the bill must be noted or protested with reasonable diligence.

SEC. 160. Where a bill is lost or destroyed, or is wrongly detained from the person entitled to hold it, protest may be made on a copy or written particulars thereof.

### ARTICLE V.

### *Acceptance for Honor.*

SEC. 161. Where a bill of exchange has been protested for honor by non-acceptance, or protested for better security, and is not overdue, any person not being a party already liable thereon, may, with the consent of the holder, intervene and accept the bill *supra* protest for the honor of any party liable thereon or for the honor of the person for whose account the bill is drawn. The acceptance for honor may be for part only of the sum for which the bill is drawn, and where there has been an acceptance for honor for one party,

there may be a further acceptance by a different person for the honor of another party.

SEC. 162. An acceptance for honor *supra* protest must be in writing and indicate that it is an acceptance for honor, and must be signed by the acceptor for honor.

SEC. 163. Where an acceptance for honor does not expressly state for whose honor it is made, it is deemed to be an acceptance for the honor of the drawer.

SEC. 164. The acceptor for honor is liable to the holder and to all parties to the bill subsequent to the party for whose honor he has accepted.

SEC. 165. The acceptor for honor by such acceptance engages that he will on due presentment pay the bill according to the terms of his acceptance, provided it shall not have been paid by the drawee, and provided also, that it shall have been duly presented for payment and protested for non-payment and notice of dishonor given to him.

SEC. 166. Where a bill payable after sight is accepted for honor its maturity is calculated from the date of the noting for non-acceptance and not from the date of the acceptance for honor.

SEC. 167. Where a dishonored bill has been accepted for honor *supra* protest or contains a reference in case of need, it must be protested for non-payment before it is presented for payment to the acceptor for honor or referee in case of need.

SEC. 168. Presentment for payment to the acceptor for honor must be made as follows:

1. If it is to be presented in the place where the protest for non-payment was made, it must be presented not later than the day following its maturity.
2. If it is to be presented in some other place than the place where it was protested, then it must be forwarded within the time specified in Section 104.

SEC. 169. The provisions of Section 81 apply where there is delay in making presentment to the acceptor for honor or referee in case of need.

SEC. 170. When the bill is dishonored by the acceptor for honor it must be protested for non-payment by him.

### ARTICLE VI.

### *Payment for Honor.*

SEC. 171. Where a bill has been protested for non-payment, any person may intervene and pay it *supra* protest for the honor of any person liable thereon or for the honor of the person for whose account it was drawn.

SEC. 172. The payment for honor *supra* protest in order to operate as such and not as a mere voluntary payment must be attested by a notarial act of honor which may be appended to the protest or form an extension to it.

SEC. 173. The notarial act of honor must be founded on a declaration





made by the payer for honor or by his agent in that behalf declaring his intention to pay the bill for honor and for whose honor he pays.

SEC. 174. Where two or more persons offer to pay a bill for the honor of different parties, the person whose payment will discharge most parties to the bill is to be given the preference.

SEC. 175. Where a bill has been paid for honor all parties subsequent to the party for whose honor it is paid are discharged, but the payer for honor is subrogated for, and succeeds to, both the rights and duties of the holder as regards the party for whose honor he pays and all parties liable to the latter.

SEC. 176. Where the holder of a bill refuses to receive payment *supra* protest, he loses his right to recourse against any party who would have been discharged by such payment.

SEC. 177. The payer for honor on paying to the holder the amount of the bill and the notarial expenses incidental to its dishonor, is entitled to receive both the bill itself and the protest.

### ARTICLE VII.

### *Bills in a Set.*

SEC. 178. Where a bill is drawn in a set, each part of the set being numbered and containing a reference to the other parts, the whole of the parts constitute one bill.

SEC. 179. Where two or more parts of a set are negotiated to different holders in due course, the holder whose title first accrues is as between such holders the true owner of the bill. But nothing in this section affects the rights of a person who in due course accepts or pays the part first presented to him.

SEC. 180. Where the holder of a set indorses two or more parts to different persons he is liable on every such part, and every indorser subsequent to him is liable on the part he has himself indorsed, as if such parts were separate bills.

SEC. 181. The acceptance may be written on any part and it must be written on one part only. If the drawee accepts more than one part, and such accepted parts are negotiated to different holders in due course, he is liable on every such part as if it were a separate bill.

SEC. 182. When the acceptor of a bill drawn in a set pays it without requiring the part bearing his acceptance to be delivered up to him, and that part at maturity is outstanding in the hands of a holder in due course, he is liable to the holder thereon.

SEC. 183. Except as herein otherwise provided where any one part of a bill drawn in a set is discharged by payment or otherwise, the whole bill is discharged.

## TITLE III.—PROMISSORY NOTES AND CHECKS.

### ARTICLE I.

SEC. 184. A negotiable promissory note within the meaning of this Act

is an unconditional promise in writing made by one person to another, signed by the maker engaging to pay on demand or at a fixed or determinable future time, a sum certain in money to order or to bearer. Where a note is drawn to the maker's own order, it is not complete until indorsed by him.

SEC. 185. A check is a bill of exchange drawn on a bank payable on demand. Except as herein otherwise provided, the provisions of this Act which are applicable to a bill of exchange payable on demand apply to a check.

SEC. 186. A check must be presented for payment within a reasonable time after its issue, or the drawer will be discharged from liability thereon to the extent of the loss caused by the delay.

SEC. 187. Where a check is certified by the bank on which it is drawn, the certification is equivalent to an acceptance.

SEC. 188. Where the holder of a check procures it to be accepted or certified, the drawer and all indorsers are discharged from liability thereon.

SEC. 189. A check of itself does not operate as an assignment of any part of the funds to the credit of the drawer with the bank, and the bank is not liable to the holder, unless and until it accepts or certifies the check.

## TITLE IV.—GENERAL PROVISIONS.

### ARTICLE I.

SEC. 190. This Act shall be known as the Negotiable Instruments Law.

SEC. 191. In this Act, unless the context otherwise requires:

"Acceptance" means an acceptance completed by delivery or notification.

"Action" includes counter-claim and set-off.

"Bank" includes any person or association of persons carrying on the business of banking, whether incorporated or not.

"Bearer" means the person in possession of a bill or note which is payable to bearer.

"Bill" means bill of exchange, and "note" means negotiable promissory note.

"Delivery" means transfer of possession, actual or constructive, from one person to another.

"Holder" means the payee or indorsee of a bill or note, who is in possession of it, or the bearer thereof.

"Indorsement" means an indorsement completed by delivery.

"Instrument" means negotiable instrument.

"Issue" means the first delivery of the instrument, complete in form, to a person who takes it as a holder.

"Person" includes a body of persons, whether incorporated or not.

"Value" means valuable consideration.

"Written" includes printed, and "writing" includes print.

SEC. 192. The person "primarily" liable on an instrument is the person who by the terms of the instrument is absolutely required to pay the same. All other parties are "secondarily" liable.

SEC. 193. In determining what is a "reasonable time" or an "unreasonable time" regard is to be had to the nature of the instrument, the usage of trade or business (if any) with respect to such instruments, and the facts of the particular case.

SEC. 194. Where the day, or the last day, for doing any act herein permitted to be done, falls on Sunday or on a holiday, the act may be done on the next succeeding secular or business day.

SEC. 195. The provisions of this Act do not apply to negotiable instruments made and delivered prior to the passage hereof.

SEC. 196. In any case not provided for in this Act, the rules of the law merchant shall govern.

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